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FERC ELECTRIC PROPOSAL

HEARINGS

BEFORE THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON A

PROPOSAL BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION TO ALLOW GREATER OPERATION OF MARKET FORCES IN THE GENERATION OF BULK POWER AND IN THE ACQUISITION OF CAPACITY FROM QUALIFYING FACILITIES UNDER THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

FEBRUARY 1 AND 2, 1988

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FERC ELECTRIC PROPOSAL

MONDAY, FEBRUARY 1, 1988

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 9:40 a.m. in room SD-366, Dirksen Senate Office Building, Hon. J. Bennett Johnston, chairman, presiding.

OPENING STATEMENT OF HON. J. BENNETT JOHNSTON, U.S. SENATOR FROM LOUISIANA

The CHAIRMAN. The hearing will come to order.

The Chair would first of all note that the quarterback for the Redskins is from Grambling, Louisiana.

[Laughter.]

The CHAIRMAN. Good morning. Today we are going to hear about a proposal before the Federal Energy Regulatory Commission to bring more market competition to the generation of wholesale power.

On one level, the proposal merely represents an effort to find sensible solutions to the problems that have arisen under the Public Utilities Regulatory Policies Act of 1978, known to its afficianadoes as PURPA.

PURPA has exceeded all expectations in producing non-utility generation, and we are now coming to grips with problems arising from that fact. In some instances, states have encouraged the overdevelopment of qualifying facilities under PURPA by setting the price for power bought under the statute too high and by requiring utilities to buy power they do not need.

In other situations, the avoided price for power from qualifying facilities has been set so low as to discourage development of economical non-utility generation.

In response to the apparent imbalances of existing practices, Chairman Hesse of FERC would clarify that states may use market forces to select among qualifying facilities competing to serve a particular need. However, the Hesse proposal goes beyond the mere selection of qualifying facilities.

It would also create a new class of unregulated generators, known as independent power producers, or IPP's, who would be free to compete for the sale of wholesale power, free from the technological restrictions of PURPA. The IPP proposal raises a host of significant questions concerning our future policy on electricity.

For example, is the present system of cost of service regulation in need of repair? Can market forces respond to the problems we see in the existing regulatory world?

If the IPP proposal goes forward, will all parties, including utilities, be given an equal chance to compete? What is the role of transmission, if any, in the IPP proposal?

I look forward to hearing from our witnesses today concerning these and other questions. We are very pleased to have the members of the Commission here to testify. I understand that the order of testimony will be Chairman Hesse, Mr. Sousa, Mr. Stalon, Mr. Trabandt, and Mr. Naeve. And Madam Chairman, we are pleased to have you. If you will please begin and proceed as you wish.

Senator FORD. I would like to submit a statement for the record, and I have got a lot of questions, and I think you hit on some of them. And I need a better explanation of what is wrong with the existing system this country has for a reliable and efficient electric system, probably the best in the world. New technologies are being introduced every day.

I am concerned about that the problems of PURPA will be repeated, in the sense that this proposal submitted by the Chairman would set up another class of privileged producers.

So, Mr. Chairman, I ask unanimous consent that this statement be included in the record.

The CHAIRMAN. Without objection.

[The prepared statements of Senator Ford and Senator McClure follow:]

Statement of Senator Wendell H. Ford
Committee on Energy and Natural Resources
Hearing on FERC Electric Proposals
February 1, 1988

In June 1986, a year and a half ago, this Committee conducted oversight hearings on the Public Utility Regulatory Policies Act. A 1200 page report was produced, which identified problems and abuses in the implementation of PURPA. The Federal Energy Regulatory Commission followed up by conducting four regional conferences on PURPA in the Spring of 1987. Approximately 160 parties participated in the oral hearings and over 220 sets of written comments were received. One of the dominant themes to emerge from the regional conferences was that in many parts of the country, avoided cost payments were excessive, thus harming consumers. Other PURPA problems were identified as well.

Yet, instead of addressing these genuine problems with the implementation of Public Utility Regulatory Policies Act, the Chairman of the Federal Energy Regulatory Commission may have complicated matters by introducing a dramatic proposal to "solve" a seemingly undocumented energy "problem." The Chairman proposed to establish a new class of electricity producers, independent power producers or IPPs, and has suggested that they compete to supply new generating facilities through competitive bidding systems set up at the state level.

Perhaps this new plan is a good idea. I look forward to the hearings today to give me additional insight. The FERC staff papers and other documents which have described this new proposal have been somewhat sketchy, so I have not made a judgment about the wisdom of moving ahead. I would caution, however, that before FERC takes irreversible action, the Members of this Committee and of the entire Congress must study this proposal and understand its implications. In my view, it would have significant impact on the consumers of electricity, on electric utilities, and, indeed on national energy security. Any proposal to make basic changes in the electric system of this country has serious consequences for the nation's economy, and its ability to produce and compete in world markets.

I am pleased that the FERC Commissioners are here today to answer questions about this proposed plan, for I have some to ask. First, I need a better explanation of what is wrong with the existing system, aside from the recognized problems resulting from the implementation of PURPA. This country has a reliable, efficient electric system, probably the best in the world. New technologies are being introduced in order to achieve greater efficiencies. I remain to be convinced that the system would benefit from a dramatic overhaul undertaken in the name of economic efficiency. I am deeply concerned that the opposite might occur --- we could be sacrificing reliability and efficiency by disrupting the entire system.

Second, I am concerned that the problems of PURPA will be repeated in the sense that this proposal would set up another class of privileged producers --- independent power producers. If a new class of electricity suppliers is encouraged, let's make sure all potential suppliers --- including electric utilities --- can participate fully. The January 15 FERC Order in the Orange and Rockland case makes it clear that utility participation will be limited.

Third, I am concerned about the impact of this proposal on national energy security. As I interpret the proposal, it would place a priority on short lead time, low cost construction, and that means gas-fired plants. Right now this country has adequate supplies of natural gas, available at low prices. This may not always be the case. If the prices of natural gas escalate, so will the price of electricity generated by natural gas --- and so will the prices of industrial processes reliant on electricity. What this country's energy policy should encourage is a diversity of fuel sources, so we can take advantage of attributes of each source and mitigate the disadvantages. I agree with the National Security Report submitted by the Department of Energy to the President when it says, and I quote, "Each supply option should have an equal chance to compete for its appropriate role in the capacity mix." The FERC proposal should be evaluated with these words in mind.

OPENING STATEMENT
SENATOR JAMES A. McCLURE (R-ID)
RANKING MINORITY MEMBER
COMMITTEE ON ENERGY AND NATURAL RESOURCES
FEBRUARY 1, 1988

FERC ELECTRICITY PROPOSALS

GOOD MORNING. MAY I EXPRESS MY APPRECIATION TO THE CHAIRMAN FOR CONDUCTING THESE HEARINGS, WHICH ARE PARTICULARLY TIMELY. THERE IS GENERAL CONGRESSIONAL INTEREST IN ELECTRICITY ISSUES BECAUSE OF EVIDENCE THAT SOME REGIONS OF THE COUNTRY ARE FACING SUPPLY-DEMAND PROBLEMS IN THE EARLY 1990'S. BESIDES THE ISSUES ADDRESSED BY THIS HEARING, CONGRESSIONAL INTEREST EXTENDS TO CONCERN FOR THE ECONOMIC EFFECTS OF PENDING AMENDMENTS TO THE CLEAN AIR ACT, AND EFFORTS TO STRENGTHEN FEDERAL ACID RAIN CONTROLS.

THE EMPHASIS OF THESE HEARINGS IS ON THE CHANGING STRUCTURE OF THE ELECTRICITY UTILITY INDUSTRY AND EFFORTS BY THE FEDERAL ENERGY REGULATORY COMMISSION TO IMPROVE ECONOMIC EFFICIENCY BY FOSTERING GREATER COMPETITION IN THE GENERATION OF ELECTRICITY. HERETOFORE, THE ELECTRIC UTILITY INDUSTRY HAS BEEN ESSENTIALLY VERTICALLY INTEGRATED FROM THE POINT OF GENERATION THROUGH THE DISTRIBUTION SYSTEM TO THE POINT OF END-USE.

IN RECENT YEARS, HOWEVER, IN PART AS A CONSEQUENCE OF THE PUBLIC UTILITIES REGULATORY POLICIES ACT OF 1978, CHANGES ARE OCCURRING IN THE BASIC STRUCTURE OF THE INDUSTRY AS CERTAIN INDEPENDENT POWER PRODUCERS ENTER WHOLESALE MARKETS. THESE TRENDS RAISE A NUMBER OF REGULATORY ISSUES THAT HISTORICALLY HAVE BEEN CONSIDERED MATTERS EXCLUSIVELY WITHIN THE JURISDICTION OF STATE COMMISSIONS.

IN THIS REGARD, THE RECORD SHOULD BE MADE CLEAR THAT PURPA DEALT WITH PROCEDURAL REFORMS TO FACILITATE STATE CONSIDERATION OF CERTAIN REGULATORY ISSUES; IT DID NOT IMPOSE FEDERAL STANDARDS. PROVIDED A STATE COMMISSION FOLLOWED SUCH PROCEDURES, DISCRETION IS LEFT WITH THE STATE COMMISSIONS AS TO WHETHER THE POLICIES ARE ADOPTED. SECTION 111(C) OF PURPA STATES THAT "THE STATE REGULATORY AUTHORITY MAY, TO THE EXTENT CONSISTENT WITH STATE LAW, IMPLEMENT ANY STANDARD DETERMINED TO BE APPROPRIATE TO CARRY OUT THE PURPOSES OF THE TITLE OR DECLINE TO IMPLEMENT ANY SUCH STANDARD." THE CONFERENCE REPORT GOES ON TO STATE THAT "THE STATE REGULATORY AUTHORITY ... WOULD BE AUTHORIZED BY FEDERAL LAW TO IMPLEMENT THE STANDARD. FAILURE TO IMPLEMENT SUCH STANDARD WOULD NOT CONSTITUTE A VIOLATION OF THIS STANDARD." I BELIEVE THAT PURPA'S LEGISLATIVE HISTORY IS CLEAR THAT PURPA WAS NOT INTENDED TO PROVIDE FERC WITH AUTHORITY TO REQUIRE ADOPTION OF SUCH POLICIES.

WHERE DOES THIS LEAVE US. WE ARE ALL CONCERNED WITH ASSURING RELIABLE SUPPLIES OF ELECTRICITY AT COMPETITIVE PRICES. WE ARE ALL CONCERNED WITH THE FINANCIAL HEALTH OF THE ELECTRIC UTILITY INDUSTRY. AND WE ARE ALL CONCERNED WITH ENHANCING COMPETITION IN THE GENERATION OF ELECTRICITY.

SIMILARLY, IT IS CLEAR THAT THERE ARE A NUMBER OF DISCRETE PROBLEMS FACING THE ELECTRICITY INDUSTRY THAT NEED TO BE ADDRESSED; FOR EXAMPLE, THE FACT THAT SOME STATE COMMISSIONS HAVE GIVEN CERTAIN QUALIFYING FACILITES EXCESSIVELY HIGH "AVOIDED COST" RATES. BUT MANY OF THE ISSUES ARE NOT EVEN WITHIN THE JURISDICTION OF FERC.

WHAT IS NOT CLEAR IS HOW FAR THE COMMISSION EITHER INTENDS TO GO, OR IS PREPARED TO GO, TO FOSTER COMPETITION AT THE DISCRETION OF STATE UTILITY COMMISSIONS AND WHETHER FERC'S ULTIMATE OBJECTIVE IS TO FORCE A RESTRUCTURING OF THE INDUSTRY ITSELF. IF THE FORMER IS THE COMMISSION'S INTENT, I WILL FOLLOW IT WITH INTEREST. IF THE LATTER IS ITS OBJECTIVE, I QUESTION WHETHER THE COMMISSION HAS THE AUTHORITY TO PROCEED INTO AREAS THAT ARE MORE APPROPRIATELY WITHIN THE JURISDICTION OF LEGISLATIVE BODIES; NAMELY, THE CONGRESS.

OUR MUTUAL OBJECTIVE IS TO MAINTAIN WHAT HAS BECOME THE MOST ADEQUATE AND RELIABLE ELECTRIC SUPPLY SYSTEM IN THE WORLD AND TO DO SO AT THE LOWEST REASONABLE PRICES TO CONSUMERS. WHAT IS CLEAR IS THAT THE PRESENT FEDERAL AND STATE REGULATORY ENVIRONMENT IN ITS ENTIRETY (INCLUDING CLEAN AIR REQUIREMENTS) IS FOSTERING INDEPENDENT POWER PRODUCTION. WHAT ALSO IS CLEAR IS THAT THE FERC PROPOSAL IS CONSISTENT WITH TRENDS ON THE PART OF THE INDUSTRY. WHAT IS NOT CLEAR IS HOW THE FERC PROPOSAL AND INDUSTRY TRENDS WILL EFFECT THE LONG-TERM ADEQUACY AND RELIABILITY OF OUR NATIONAL ELECTRIC SUPPLY SYSTEM. WHILE IT IS WITHIN FERC'S JURISDICTION TO EXAMINE THIS AREA AND PROVIDE GUIDANCE TO STATE REGULATORY BODIES, THERE IS A POINT WHERE THAT GUIDANCE BECOMES BINDING EITHER BY IMPLICATION OR ITS ADOPTION AS GENERAL INDUSTRY PRACTICE.

FROM THAT PERSPECTIVE YOU CAN EXPECT THAT THE CONGRESS WILL BE FOLLOWING WITH INTEREST FERC'S PROGRESS IN THIS AREA EVEN IF IT IS UNABLE TO MAKE THE NEEDED LEGISLATIVE REFORMS ITSELF.

THANK YOU, MR. CHAIRMAN.

STATEMENT OF HON. MARTHA O. HESSE, CHAIRMAN, FEDERAL ENERGY REGULATORY COMMISSION

Ms. HESSE. Mr. Chairman and members of the Committee, it is a pleasure to appear before you today to testify on PURPA and competitive bidding and the regulation of independent power producers.

Before discussing the PURPA-related reform initiatives which the Commission is currently considering, I think it is important to briefly review the context for electric regulatory reform.

The electric utility industry is clearly being affected by competitive pressures. Over the last decade, a number of factors have converged to bring about a dramatically different business climate in which utilities must operate. Utilities have had to face unstable capital markets, high interest rates, volatile fuel prices, and uncertain rate recovery.

They have also been confronted with increased competition resulting from the proliferation of cogenerators and small power producers, as well as technological advancements in transmission and generation.

It has also become clear that our current form of regulation is ill-equipped to deal with some of the uncertainties and risks associated with today's electric's power business. The industry and consumers are experiencing time-consuming prudence reviews, rate shock, and the phenomenon of bypass.

Regulators must provide a more flexible framework for dealing with these problems and the competitive realities facing the industry.

I believe that there are two key aspects in improving the way we regulate: first, to better balance the risks and rewards for those involved in the power production business; and second, to recognize the fact that electric generation may no longer be a natural monopoly in all markets.

The need for regulatory reform is already being driven by the market. Over the last year, the Commission has acted on a number of innovative proposals by utilities for the flexible pricing of generation and transmission.

The challenge for regulators is to try to provide leadership in anticipating the need for more flexible regulation. Our goal should not be to impose a particular outcome, but rather we should seek to ensure that efficient outcomes are not precluded by regulatory roadblocks.

To meet the challenge of creating a more responsive regulatory system, I think it is vital that the Commission undertake a thorough review of its current policies toward the electric industry, and there are four major areas that need to be analyzed: PURPA, bulk power pricing, transmission pricing and access, and last, incentive regulation.

However, neither the staff nor the Commission can deal with all of these issues at once. We must start somewhere. Because of the unprecedented impact of PURPA generation on the electric industry and the need to integrate PURPA into the overall electric picture, the Commission is focusing its initial—and I want to underscore, initial—regulatory reform efforts on PURPA-related issues.

Last spring the Commission held four regional public conferences on the implementation of PURPA, and the record from those hearings contained many conflicting claims regarding PURPA's impact on the electric utility industry. But I do believe that several things are now clear:

First, PURPA has outgrown the role of a limited energy conservation program. It has outgrown the role of a program designed to demonstrate the viability of renewable resource technologies. Non-utility power has grown into a multi-billion dollar business that is providing a majority of the new generating capacity in several large regions of the country.

Second, implementation of PURPA has not been consistent. In some cases, avoided cost rates for power from cogeneration and small power production have been inaccurately determined. Utilities have had to pay hundreds of millions of dollars for generating capacity they do not need and electric energy that could have been produced or purchased elsewhere more cheaply.

In other cases, avoided costs have been set too low, with the result that economical cogeneration and small power production facilities have not been built. And in both cases consumers have ended up paying too much for electricity.

And third, to the extent that rates paid to QF's have exceeded utilities' incremental costs, implementation of PURPA may be causing an uneconomic and inefficient substitution of PURPA technologies for other sources of power.

In addition to the insight gained from the PURPA hearings, the Commission staff has been analyzing the voluminous information obtained from the Commission's 1985 notice of inquiry, as well as other sources of information. We also held a staff technical conference last year on the role of independent power producers in meeting future generation needs.

In response to what we have learned from these sources and to what is happening in the industry in general, there are two possible regulatory approaches to correct the problems with PURPA.

The first approach would be consistent with the way we have traditionally regulated privately owned electrical utilities: refine avoided cost pricing and the restrictions in the current PURPA rules to try to eliminate past inefficiencies.

Alternatively, we could place more reliance on a market-oriented approach that would help ensure more efficient, reliable power supplies for consumers.

This second approach would focus on integrating power offered under PURPA with the other power sources available to the utilities, including the utilities' own construction programs, purchases from other utilities, and non-QF power producers.

I have recommended to my fellow Commissioners that we pursue both approaches, and we have now completed drafts of three notices of proposed rulemaking which would implement these approaches. The major areas covered by these NOPR's are as follows:

First, we would provide guidance on administratively determined avoided costs;

Second, we would permit, but not require, competitive bidding as a legal means for determining avoided costs, and provide flexible rules on bidding for states that choose to use it. We would encourage, but not require, that all potential suppliers be allowed to directly participate in bidding. This would include utilities and non-AF independent power producers.

Third, we would reduce regulatory burdens under the Federal Power Act for non-QF independent power producers who have no monopoly power and who might enter the market through bidding or privately negotiated power contracts. Utility purchases from independent power producers would remain strictly voluntary, and under certain circumstances utilities themselves could qualify as independent power producers.

Fourth, we would provide maximum pricing flexibility that is possible under the Federal Power Act for utilities that participate in properly implemented bidding programs in their own service territories.

A fifth area which is not addressed in this group of NOPR's, but on which I recommend that we act in the coming year, involves procedural and technical issues to deal with the other problems raised in the PURPA conferences.

Over the past eight months, we have met with electric utilities, QF's, consumers, and state regulatory representatives to ascertain problems and solutions on how we can make these initiatives work in the best interests of consumers and provide the states the necessary flexibility for determining avoided cost.

We have undertaken an unusual approach in developing these new initiatives, in that we have tried to obtain informal input from all affected parties before actually putting anything on paper and beginning a formal process. And the draft rulemakings currently being reviewed reflect what was learned at these meetings, as well as through more formal processes.

I have outlined in my written testimony what I think will be the important features of the proposed rulemakings on avoided costs, or administratively determined avoided costs, competitive bidding, and independent power producers.

These proposed rulemakings taken as a package will provide alternative means of more accurately determining avoided costs as defined in PURPA and will increase the electricity supply options available to utilities and state commissions, and I sincerely believe that they will provide the first step of an incremental approach for dealing with the electric issues facing us.

Concerns have been raised that IPP's and bidding will adversely impact reliability. These proposals, however, should not have a negative effect on system reliability. System reliability will continue to be assured by the same authorities, state regulators and utilities, using the same considerations that they use today.

Institution of a bidding plan will be voluntary for the states, and authorities conducting the program will be free to impose any reliability requirements on the participants. In fact, the effect on system reliability will be a non-price factor which must be considered in the selection of the winning bids.

Reliability is not a new question, and there are a variety of measures which are already used by utilities to evaluate the reliability of their power purchases. As is now the case with purchases from QF's or other wholesale suppliers, concerns about adequate and reliable service from winning bidders can be addressed through pricing, performance bonds, or other security for contract performance, dispatchability requirements, and the bidding selection criteria themselves.

Additionally, purchases from third party suppliers can aid the utility in achieving fuel diversity, which in fact promotes the reliability of the overall system.

As long as purchases from independent power producers remain voluntary, I am confident that utilities will carefully choose among IPP's to ensure that third party generation aids their reliability efforts to continue to provide adequate, reliable, and reasonably priced electricity.

Utilities' management of their supply portfolios will ensure that IPP's will not adversely affect the nation's electric system.

I would like to summarize by saying that, in response to all of the debate on these issues, we must keep in mind the Commission's basic responsibility, to ensure that consumers get adequate, reliable supplies of electricity at the lowest possible cost.

And I believe that greater reliance on competitive forces is a tool for meeting that responsibility and for providing the regulatory flexibility necessary to allow a more efficient market to evolve.

It is a tool which can be used within existing statutory authority to provide better price signals to consumers, better use of existing facilities, and the necessary incentives to build new capacity when it is needed.

And lastly, some have asked why the Commission should proceed with reform without any clear indication that there is something wrong with the way we have traditionally regulated utilities. And I recommend to you Commissioner Stalon's testimony on this very point.

He identifies many of the problems associated with how we regulate this industry. The rigid regulatory regime of the past decades is not likely to take us successfully into the future, and I believe we must provide leadership in developing regulation that can better achieve our goal of maintaining an efficient, reliable electric system to serve the nation's economy and its citizens.

I look forward to working with Congress and with my fellow Commissioners to achieve our mutual goals.

Thank you, Mr. Chairman.

[The prepared statement of Ms. Hesse follows:]

STATEMENT OF MARTHA O. HESSE
CHAIRMAN OF THE
FEDERAL ENERGY REGULATORY COMMISSION
BEFORE THE COMMITTEE
ON ENERGY AND NATURAL RESOURCES
February 1, 1988

Mr. Chairman, and members of the Committee, it is a pleasure to appear before you today to testify on the Public Utility Regulatory Policies Act of 1978 (PURPA), competitive bidding, and the regulation of independent power producers. Before proceeding to the specifics of the PURPA-related initiatives currently being considered by the Commission, I think it is important to keep in mind the context for electric regulatory reform.

The electric utility industry is clearly being affected by competitive pressures. Over the last decade, a number of factors have converged to bring about a dramatically different business climate in which utilities must operate: unstable capital markets, high interest rates, volatile fuel prices, uncertain rate recovery, and increased competition resulting from the proliferation of cogenerators and small power producers, as well as technological advancements in transmission and generation.

It has also become evident that our current form of regulation is ill-equipped to deal with some of the uncertainties and risks associated with today's electric power business. The industry may not be operating as efficiently as possible, and electric rates to consumers may not be as low as they could be. Time-consuming prudence reviews, rate shock, and the phenomenon of "by-pass" have left both consumers and the utility industry far from satisfied. Regulators must provide a more flexible framework for dealing with these problems, and the economic realities facing today's utilities. A key aspect in reforming regulation is to better balance the risks and rewards of being in the power production business. A second key aspect is recognition of the fact that electric generation may no longer be a natural monopoly in all markets.

The Commission's basic responsibility is to ensure that consumers get adequate, reliable supplies of electricity at the lowest possible cost. Greater reliance on competitive forces is a tool for meeting that responsibility, and for providing the regulatory flexibility necessary to allow a more efficient market to evolve. In markets where competition can work, it can provide greater efficiency and lower rates, while ensuring the levels of reliability expected by consumers. It can provide the incentives to take risks, to produce and construct efficiently, and to develop new innovative technologies. Where competition cannot work, we must improve our regulations to better simulate a competitive market.

The need for regulatory reform is already being driven by the market. Over the last year the Commission has acted on a number of innovative proposals by utilities for the flexible pricing of generation and transmission. The challenge for regulators is to try to provide leadership in anticipating the need for more flexible regulation. Our goal should not be to impose a particular outcome. Rather, we should seek to ensure that efficient outcomes are not precluded by regulatory roadblocks.

To meet this challenge, the Commission must develop an integrated set of policies which will provide a comprehensive, consistent framework for regulating the electric industry. When I took office, Notices of Inquiry addressing bulk power pricing and transmission had already been initiated. The Notices of Inquiry did not, however, directly address cogeneration and small power production. Because of this, and also in response to problems raised in Congressional hearings on PURPA in 1986, the Commission held four regional conferences last spring to evaluate its implementation of PURPA. The

Notices of Inquiry and the PURPA conferences produced some 11,000 pages of comments or testimony reflecting a wide range of interests and ideas.

The Commission staff has been analyzing the voluminous information gained from the Notices of Inquiry and the PURPA conferences, as well as other sources of information, to formulate recommendations regarding potential electric reforms. However, neither the staff nor the Commission can deal with all the issues at once. Because of the unprecedented impact of PURPA generation on the electric industry, the need to integrate PURPA into the overall electric picture, and the substantial interest in PURPA recently exhibited by various interest groups, the Commission is focusing its initial regulatory reform efforts on PURPA-related issues.

These efforts will provide the backdrop for further examination of the Commission's electric policies. After dealing with PURPA, we must move expeditiously but carefully to the three major areas of bulk power pricing, transmission pricing and access, and incentive regulation. And we must address these issues in an incremental, coordinated fashion.

With regard to PURPA, the record from the regional hearings is extensive, and there are many conflicting claims regarding PURPA's impact on the electric utility industry. But several things have become apparent.

First, PURPA has evolved into something far beyond the expectations of its creators. It has outgrown the role of a limited energy conservation program, or a program designed to demonstrate the viability of renewable resource technologies. Non-utility power has grown into a multi-billion dollar business that is providing a majority of the new generating capacity in several large regions of the country.

Second, implementation of PURPA by the states has not been consistent. In some cases, avoided cost rates for power from cogeneration and small power production have been inaccurately determined; utilities have had to pay millions of dollars for generating capacity they do not need and electric energy that could have been produced or purchased elsewhere more cheaply. In other cases, avoided costs have been set too low, with the result that economical cogeneration and small power production facilities have not been built. In both cases, consumers have ended up paying too much for electricity.

Third, PURPA and its subsequent implementation did not anticipate how large a role non-utility power sources would assume in meeting the United States' electricity needs. To the extent rates paid to producers using these technologies have exceeded utilities' incremental costs, implementation of PURPA may be causing an uneconomic and inefficient substitution of these technologies for other sources of power.

The record from the regional conferences indicates two possible regulatory approaches to correct the problems with PURPA.

The first approach would be consistent with the way we have traditionally regulated privately-owned electric utilities: refine avoided cost pricing and the restrictions in the current PURPA rules to try to eliminate past inefficiencies. Alternatively, we could place more reliance on a market-oriented approach that would help ensure more efficient, reliable power supplies for consumers. This second approach would focus on integrating power offered under PURPA with the other power sources available to utilities, including the utilities' own construction programs, purchases from other utilities, and non-QF power producers.

I have recommended to my fellow Commissioners that we pursue both approaches, and we have now completed internal drafts of three Notices of Proposed Rulemaking (NOPRs) which would implement these approaches. Consistent with the first approach, we have completed a proposed draft NOPR which contains new regulations providing additional guidance to the states on how to price power from cogeneration and small power production, should the states decide to determine avoided cost administratively.

With regard to the second, market-oriented approach, separate draft rulemakings have been proposed on competitive bidding, and reducing regulatory burdens under the Federal Power Act on independent power producers. The purpose of these NOPRs is evolutionary, that is, to increase regulatory flexibility and address industry developments that are already occurring.

During the past eight months, we met with electric utilities, QFs, consumers, and state regulatory representatives to ascertain problems and solutions on how we can make these initiatives work in the best interests of consumers, and provide the states the necessary flexibility for determining avoided costs. The information gained from these discussions has been incorporated into the drafts currently being reviewed by the Commissioners.

I will now outline what I think should be the salient features of the proposed rulemakings.

ADMINISTRATIVE DETERMINATION OF AVOIDED COST

States should retain the authority to price QF power administratively. However, some states have required utilities to pay rates that exceed their avoided cost, or to purchase QF power they don't need. Regardless of what method is used to determine avoided cost, utilities and consumers should not be required to pay for capacity they don't need. Moreover, prices exceeding avoided cost are contrary to the PURPA statute, and the Commission has an obligation to ensure compliance with PURPA. As with all of the reforms being undertaken, an important goal we need to pursue is that consumers be left indifferent as to the source of the power they purchase -- whether it be produced by their local utility, by PURPA producers, or non-utility non-PURPA entities. Where a PURPA producer does supply power, however, it should receive a non-discriminatory rate that reflects the utility's true avoided cost.

BIDDING

Several states have already implemented bidding systems for determining avoided cost. Others are uncertain as to whether bidding is legal under PURPA. I believe that a properly implemented bidding system is consistent with PURPA, and that bidding is a promising approach to providing efficient and reliable electricity. It also has the potential to solve many of the pricing problems identified in the PURPA conferences.

An important point to emphasize is that bidding would be voluntary. States would continue to have the discretion to set avoided cost through the administrative mechanisms that have developed under PURPA. However, several states already have bidding systems in place and, based on what staff has learned, it appears that a workable and effective bidding system would contain the following general elements.

First, a utility that needs new capacity would solicit bids. The determination of how much and the type of capacity and power needed by the utility would be a decision of the buying utility, subject to state regulatory review as appropriate.

Second, a formal selection process would be held, under which the utility would choose the winning bids based on price and non-price factors which affect the operational integrity of the system. Such factors might include the ability to dispatch, interruptibility of service, plant location, reliability, and fuel mix. The precise way in which the non-price factors are incorporated into the process would be left to the states.

Third, qualifying facilities whose bids are not accepted would not be entitled to capacity payments. However, they would be entitled under PURPA to receive energy payments. In the case where there is a tie between the bids of a QF and a non-QF, i.e., the QF offers comparable power at a comparable price, the QF should be given preference.

Fourth, the states would be encouraged -- but not required -- to permit a wide range of participants to submit bids. These would include QFs, the buying utility, non-QF power producers, and other utilities. There would be no limit on the technologies allowed to participate, or inclusion of conservation and load management programs.

While the success of bidding, and compliance with PURPA, will depend upon the bidding process somehow taking into account utility and non-QF, non-utility sources of power, states would not have to do this by allowing all sources of power to participate _directly_ in the bidding. A bidding system could take into account utility and non-QF non-utility sources of power in a variety of other ways. For example, the Massachusetts bidding system uses the utility's own avoided cost forecast, which takes into account all non-QF means of obtaining power, as a benchmark for QFs to bid against.

Regarding utility participation, states could allow utilities to participate directly in the bidding process, or have the utility stand ready to build whenever the bidding does not elicit adequate, reliable supplies of power at reasonable cost. If the state does allow the utility that is buying the capacity to also participate in the bidding, rules may have to be put in place to eliminate the potential abuses of self-dealing.

I believe states should be encouraged to allow the utility that is seeking new capacity to submit bids, since we otherwise would be excluding from participation the very supplier who is often the most experienced and most knowledgeable about the needs of the electric system and its customers. It would appear that any potential for abuses due to self-dealing could be addressed and resolved directly by state oversight of the bidding process.

Fifth, nothing in the bidding proposal would alter states' responsibilities regarding certification of utilities' need for new capacity, environmental and siting regulation, and prudence reviews of utilities' power purchases in retail rate cases. States could monitor utilities' selection of winning bids and certify or formally approve such selections.

Sixth, bidding should lead to a shift of state regulatory oversight from "after-the-fact" to "before-the-fact" reviews. By submitting its selection of the winning bids to the state for approval, the utility will be able to shift the focus of regulatory oversight toward the beginning of the planning process.

Finally, as previously indicated, several states have already started down the bidding path. The Commission therefore would not be breaking totally new ground with this initiative. There is no intent to preempt the states or to unduly limit their flexibility. Nor is there any intent to set forth one single way of implementing a bidding system. Any conditions which are imposed should be limited to those necessary to ensure that bidding is implemented in a manner consistent with PURPA and the Federal Power Act. We should, however, try to provide guidance so that when states and non-regulated utilities choose the bidding approach, the outcome will be fair and efficient.

INDEPENDENT POWER PRODUCERS

The concept of bidding logically leads to the third area of possible change -- reducing the regulatory burdens under the Federal Power Act on certain non-QF independent power producers. The term "independent power producers" is used in this context to mean non-QF entities that sell electric power in areas where they have no service franchise and otherwise lack significant market power.

In order to have wide participation in the bidding process, it must be recognized that there are many potential power producers that cannot qualify as cogenerators or small power producers under PURPA. An example is the industrial power plant which may have excess capacity but which cannot qualify as a cogenerator under PURPA because it does not use any of the heat output in its manufacturing process. There are also several promising technologies that do not qualify as QF's, such as clean coal technology. The distinguishing characteristic of these independents is their lack of market power. There appears to be no reason to exclude this potentially significant source of electric generating capacity from the market. In fact, we would be doing the nation a great disservice if we do not encourage them to help meet our energy needs.

I would hope that the states would allow independent power producers to participate directly in any bidding process they might establish. However, the independents would not be limited to bidding. They could, for example, sell their output through privately negotiated contracts with utilities. The key is to find ways in which the Commission can remove regulatory barriers to their entry into the market, within the confines of the Federal Power Act.

There are three major points regarding the independent power producers initiative:

First, the rates charged for their sales would come under the Federal Power Act, not PURPA. Since the category would be defined in such a way as to include only sellers lacking significant market power, it is anticipated that independent power producers would get the maximum pricing flexibility possible under the Federal Power Act's "just and reasonable" standard.

Second, the Commission would be unable to extend PURPA benefits afforded QF's to independent power producers. For example, utilities would not have an obligation to buy from independent power producers. Utilities would enter into contracts with independent power producers on a strictly voluntary basis.

Third, all different types of entities should have the opportunity to become independent power producers under appropriate circumstances. This includes industrial and engineering firms as well as utilities. There would seem to be no compelling reason why a utility should be precluded from becoming an independent power producer in situations where it is selling power outside its zone of economic influence.

In this regard, even where the utility does not qualify as an IPP, but participates in a properly implemented bidding program in its own service territory, it should be eligible to receive pricing flexibility under the Federal Power Act. Neither eligibility to bid nor eligibility to receive limited rate review should be contingent on being an IPP. I believe that state involvement in implementing bidding and reviewing the selection of winning bids, as well as the competitive nature of the process, should provide ample restraint on participating utilities' exercise of market power. As such, rates established through bidding should be accepted with limited regulatory review.

Furthermore, rate flexibility for utilities that do not qualify as IPPs need not be limited to the context of bidding. Utilities, of course, already have authority to seek pricing flexibility on a case-by-case basis and, indeed, have increasingly been making such requests. A generic policy, however, would permit a more comprehensive analysis of the issue, and provide certainty to utilities.

The incremental nature of the IPPs proposal must be emphasized. Independent power producers are not a new or novel idea. Third-party generation is increasingly becoming a fact of life for utilities. This proposal would merely increase the pricing flexibility and reduce the regulatory burdens for independent power producers under the Federal Power Act.

There are several additional points which should be made regarding both the bidding and independent power initiatives.

Some have questioned whether these proposals would be consistent with the utilities' obligation to serve. Nothing in the proposals would alter the franchised utilities' traditional role beyond the changes mandated by PURPA, nor prejudice how states and utilities will ultimately resolve the problem of integrating non-utility sources of electric power with the utilities' traditional service obligation. Contracts with IPPs would be strictly voluntary. Presumably a utility would not sign a contract with an IPP which could not provide reliable service to help meet the utility's system needs.

Moreover, any change in the structure of the industry and the ownership of generating capacity is likely to occur over decades as new capacity is brought into service. Utilities and state and federal regulators will be able to monitor developments carefully, and states will remain free to supply new capacity under the traditional regulatory compact.

Concerns have been raised that IPPs and bidding will adversely impact reliability. These proposals, however, should not have a negative effect on system reliability. System reliability will continue to be assured by the same authorities (state regulators and utilities), using the same considerations that they use today. Institution of a bidding plan will be voluntary for the states, and authorities conducting the program will be free to impose reliability requirements on the participants. In fact, the effect on system reliability would be a non-price factor which must be considered in the selection of the winning bids.

Reliability is not a new question, and there are a variety of measures which are already used by utilities to evaluate the reliability of their power purchases. As is now the case with purchases from QFs or other wholesale suppliers, concerns about adequate and reliable service from winning bidders can be addressed through pricing, performance bonds or other security for contract performance, dispatchability requirements, and the bidding selection criteria. Additionally, purchases from third-party suppliers can aid the utility in achieving fuel diversity, which, in fact, promotes the reliability of the overall system.

As long as purchases from IPPs remain voluntary, I am confident that utilities will carefully choose among IPPs to ensure that third-party generation aids their efforts to continue to provide adequate, reliable, and reasonably priced electricity. Utilities' management of their supply portfolios will ensure that IPPs will not adversely affect the nation's electric system.

Another obviously important issue is transmission access. Many commenters have requested that the FERC consider questions of transmission access in a broader context than PURPA policy. I am generally persuaded by this viewpoint. Transmission is a central element of utility operations and regulation. Transmission pricing and access raise complex technical and legal issues that must be approached from the perspective of the entire industry, and be dealt with in a comprehensive fashion.

However, transmission access has become an issue in designing competitive bidding systems. Some argue that competitive bidding can be successful only if suppliers' access to transmission capacity is maximized. Others argue that transmission access must be controlled in order to maintain system reliability. I believe that bidding will result in efficiency gains even without changes in transmission pricing and access.

More flexible pricing of transmission, which I generally favor, may go far to encouraging additional transmission and enhancing the competitiveness of the electric industry -- including the competitiveness of bidding. The Commission staff is currently analyzing transmission pricing issues, and will be able to benefit from the numerous transmission studies currently underway.

I believe that the initiatives I have outlined will provide an incremental approach that breaks a large problem down into small, reasonably achievable steps. This is preferable to the "go for broke" approach that attempts to solve all problems at the same time.

Some have questioned the effectiveness of moving forward with these initiatives absent changes in the Public Utility Holding Company Act (PUHCA). PUHCA appears to be a significant barrier to the market entry of a variety of potential power producers. This subject needs to be thoroughly discussed. However, the Commission should not be dissuaded from carefully moving forward with a policy on independent power producers simply because all barriers to market entry have not been removed.

I have also raised the possibility that the Commission address in later rulemakings procedural and technical issues raised in the PURPA hearings. The Commission should consider issuing rules later this year which deal with such issues as QF certification requirements, allowable waste fuels for small power production, use of fossil fuels in small power facilities, and procedures for PURPA data collection.

In summary, I believe the Commission has a unique opportunity under existing statutory authority to put into place a flexible regulatory framework that keeps pace with the changes in the industry. I believe that while competitive markets may not be perfect, regulation that relies on the market to the maximum extent possible is our best means for ensuring adequate, reliable supplies of power at the lowest possible cost. The initiatives currently under discussion should increase the supply options available to utilities and state regulatory Commissions. By using market forces where they will work, we will provide better price signals to consumers, better use of existing facilities, and the necessary incentives to build new capacity where it is needed.

I look forward to working with the Congress and my fellow Commissioners to achieve our mutual goals.

The CHAIRMAN. Mr. Sousa.

STATEMENT OF HON. ANTHONY G. SOUSA, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION

Mr. SOUSA. Thank you, Mr. Chairman.

Mr. Chairman and members of the Committee, I appreciate this opportunity to appear before you to testify on potential reform of Commission policies regarding electric power acquisition by electric utilities.

At this time I have no specific recommendations to make. Rather, I am continuing to follow these issues as they develop, to review relevant materials that may be prepared by our staff, and to deal with the related issues which appear before the Commission on a case by case basis, such as our recent order on independent power producers in Orange and Rockland Utilities.

During Commission discussion of that decision, I stated that it was a good example of innovative and imaginative utility management. I look forward to considering Chairman Hesse's PURPA reform initiatives.

I have previously expressed my overall position on these matters to the House Subcommittee on Energy and Power. I stated there that proponents of change bear the burden of demonstrating that there are deficiencies which will be rectified by their proposals.

On the other hand, I am a firm believer in competition, and those who advocate continuing monopolistic practices bear the burden of showing that those practices continue to be in the public interest.

My beliefs remain the same. My main responsibility as I see it as Commissioner is to ensure that consumers get sufficient electric energy from a reliable source at the lowest possible cost, with emphasis on reliability.

Thank you very much, Mr. Chairman. I am prepared to answer any questions you may have.

The CHAIRMAN. Thank you, Mr. Sousa.

Mr. Stalon.

STATEMENT OF HON. CHARLES G. STALON, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION

Mr. STALON. Thank you, Mr. Chairman.

I am pleased to testify today on a matter of broad public interest. These timely hearings should serve to elevate the level of public debate on the serious issue of regulatory reform in the electricity industry.

The first focus of my filed testimony is on the fundamental question of whether there is a need for reform or, to use the colloquialism so often employed, whether the traditional regulatory system is broken, or sufficiently broken to justify exploring alternative approaches.

I argue in my testimony that the system is so sufficiently broken. I have analyzed this issue from the viewpoint that the primary objective of electricity industry regulation, at least by the FERC, should be to maximize economic efficiency, for that will provide the best assurance of just and reasonable rates to consumers.

Because the regulatory system has proven difficult to reform, my conclusion is that, while reform of the traditional regulatory system is desirable and should be pursued, the first thing we should do is to pursue a workably competitive generating sector. That should in the immediate term be a primary, but not the sole, focus of the FERC reform efforts.

My testimony details how the economic and legal environment of the industry has so changed over the last two decades as to render the traditional regulatory structure seriously inefficient. Clearly, any argument for basic changes in the structure or means of control of this industry must be predicated upon more than transient problems.

The two major premises that support my conclusions are: first, the existing regulatory system has failed to price electricity services correctly, and this is not a transient failure;

And second, the natural monopoly characteristics of the generating sector of the electricity industry have diminished and perhaps have become insignificant for macroeconomic, technological, and legal reasons. The technological changes are permanent, as are some of the legal and macroeconomic changes.

The principal technological changes diminishing the significance of scale arguments in generation are advances in transmission and control technologies. These changes make it economically feasible to coordinate generating plants over large regions and to move large amounts of power great distances.

Such coordination economies, however, can be achieved only by either expanding the range of managerial control, that is by encouraging horizontal mergers of currently vertically integrated utilities, or by expanding the role of wholesale markets.

The potential efficacy of each approach must be evaluated on its ability to produce economically efficient outcomes in a microeconomic and legal environment quite different from that of the 1950's and 1960s, when the current system was molded.

Three important macroeconomic developments, by and large beyond the control of utilities and their regulators, have altered the underlying economic assumptions upon which many aspects of the old system rest:

First, the macroeconomic policy of the United States underwent major changes in the late sixties and early seventies in response to persistent inflation fears. It changed from a low interest rate policy that prevailed from the 1930's to the late 1960's to a high interest policy that has persisted since. Low interest rates, of course, encourage long gestation capital-intensive plants.

A second macroeconomic failure has been the intensification of the business cycle. The electricity industry, with its capital intensity, its highly leveraged capital structures, its long lead times, and its rigid pricing models, is particularly vulnerable to swings in the business cycle.

The third macroeconomic force has been the growing interdependence of world economies. The internationalization of fossil fuel prices and the fact that monetary policy has become increasingly internationalized means that two of the major costs in the electricity industry—namely, fuels and investment funds—are now determined in international markets.

A less direct effect is that major utility customers, particularly large industrials, must become more sensitive to international markets if they are to compete effectively. Current regulatory practices tend to aggravate the industrials' competition problems.

Electricity utilities ought to be a part of the nation's strength in international competitiveness. Instead, largely because of the pricing model the industry has institutionalized, they are a serious part of the problem. The inability of regulatory pricing traditions to respond effectively to these macroeconomic changes has exacerbated the more obvious problems of the electricity industry, problems such as rising costs of constructing generating and transmission facilities, caused partly by inflation, partly by increased environmental and safety concerns, and partly by lengthening decision processes of regulatory agencies.

A poignant example of how badly the traditional rate base regulatory pricing model responds to international competition is that when faced with the 1982 recession and declining demand, utilities generally increased margins and raised prices, rather than reduced them, at the very time electricity users most needed and economic efficiency demanded rate relief.

For such reasons, the pricing model is unacceptable. With the emergence of more competition in generation, it is questionable how long that model is even sustainable.

Efforts to reform this pricing model, such as Title 1 of PURPA, have produced meager results. After working 10 years in this regulatory system, seven at the state level and three and a half at the FERC, I am convinced that pricing can best be improved by encouraging the emerging competitive generating sector.

Two other forces have arisen from the current situation that, in my view, pose serious threats to the viability of the traditional electricity system and perhaps to its regulatory structure.

The first is a pressure for bypass, i.e. the desire of retail and wholesale customers to get to suppliers other than their traditional utility supplier or, where feasible, to self-generate, even when the utility is a more efficient generator.

This pressure for bypass is very much the product of the failures of the traditional system and has been greatly exacerbated by the demand-perverse pricing models used in that system.

The best response to bypass is to create a more efficient competitive generating sector that will reverse the trend. The worst response would be to try to resurrect the strong monopoly and monopsony power of utilities in order to deny choices to alternative suppliers and to deny choices to the electricity customers.

The second major threat emanating from the problem of the current system has been a troubling increase in tension between the FERC and state commissions, most intensely shown in the Middle South case. My testimony details how tensions such as these are deeply rooted in the inherited mandates of the traditional system.

The FERC's proposals for encouraging competitive disciplines have not yet been put into final form, but I am generally convinced that increasing competition among generating companies has the potential of substantially reducing both pricing errors and State/Federal conflicts.

I must, at the expense of redundancy, stress that the macroeconomic, technological and legal changes I have mentioned cannot be controlled by regulators or utilities and are probably long term in nature.

Hence, notions that the industry's troubles are temporary and that the industry can, by tinkering with the regulatory system, return to the happy years of the 1950s and early 1960s are illusional.

Equally unrealistic, I believe, are the reform notions that would seek to have State commissions through up-front or "rolling" prudence reviews assume the planning risks traditionally assumed by utility management.

The case for exploring reforms to remove barriers to the development of more competitive generation markets in the hope of achieving a more efficient system is overwhelming.

I, therefore, continue to support a long overdue reform of most components of the FERC's regulation of the bulk power markets, including requirement services and transmission services. In particular, I support moving soon to expand opportunities for independent power producers and qualifying producers.

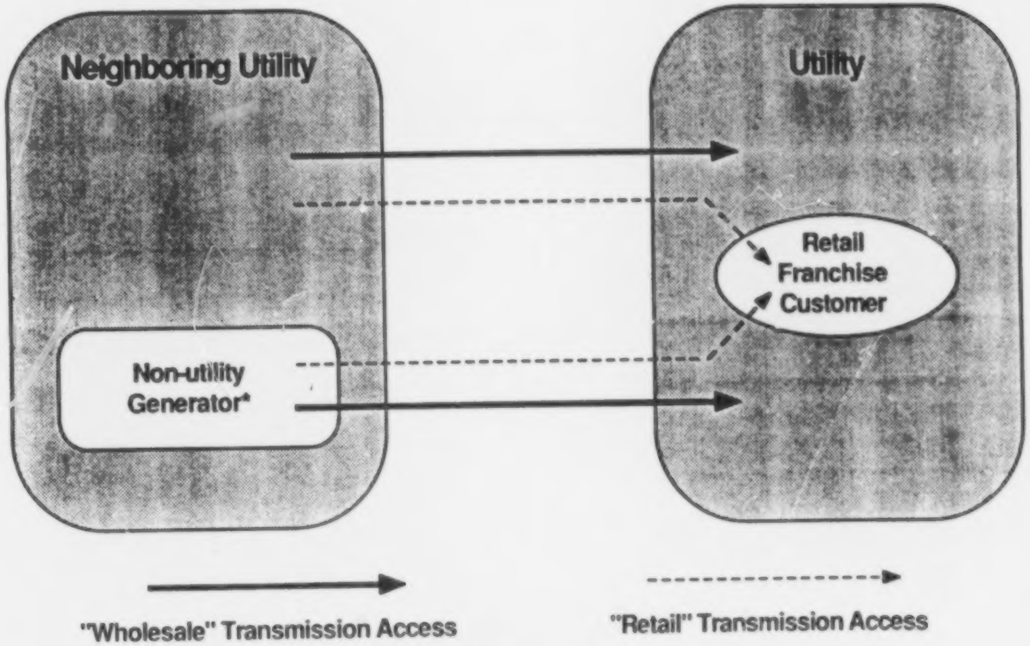
However, I emphasize my intent that the current FERC initiative not be a piecemeal reform but regarded as a first in a series of incremental steps designed to progressively move the industry to an efficient structure.

I pay particular attention in my testimony to the controversial issue of transmission access. I draw a critical distinction between "supplier" access sometimes called "wholesale access", the only form of access currently at issue in the FERC's initiative to reform its wholesale regulation, and the concept of "customer access" (sometimes called "retail access"). Retail access would permit bypass and constitute a major change in the traditional utility system.

Chart 1, which I have prepared, on my left and on your right, is designed to illustrate the difference between wholesale and retail transmission access.

CHART 1

The Difference Between "Wholesale" and "Retail" Transmission Access


Neighboring Utility
Non-utility Generator*
Utility
Retail Franchise Customer
"Wholesale" Transmission Access
"Retail" Transmission Access

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

The green lines represent "supplies access; that is, transmission would be approved in moving power from one utility to another utility or a nonutility generator in one territory to a utility someplace else.

Retail access, on the other hand, is symbolized with the red signs, that is wheeling from one utility to customers. That form of transmission access is not being discussed at the FERC. There is no proposal now, or even under future discussion, for retail transmission access, although I have argued elsewhere that a fully competitive market may require that; but that is not what we are now talking about at the FERC.

I believe the FERC will have to address some time soon the issue of general "supplier" access as a part of its overall review of wholesale regulation. I do not believe it is necessary to tackle that difficult problem in this first reform package.

However, I do in my testimony make two very discrete supplier access proposals, carefully tailored to the needs of an all-source bidding scheme.

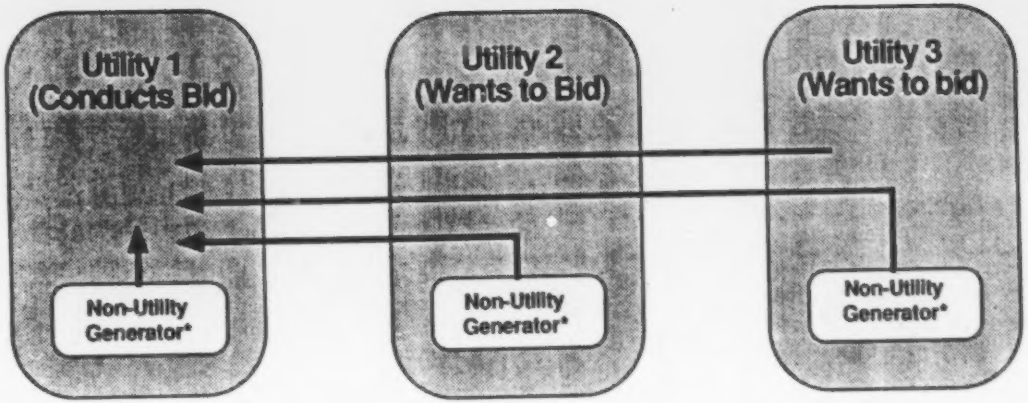
These proposals, if implemented, would in certain circumstances considerably enhance the efficiencies to be gained from such bidding schemes.

The first, which I have called a "wheeling-in" proposal, would require utilities wishing to bid in an auction to wheel for other bidding suppliers, but only for the winning bids of the other suppliers. Chart 2 illustrates that point.

CHART 2

"Wheeling In" Conditioned on Utilities Wanting to Bid

Utility 2 Wants to Bid


Utility 1
(Conducts Bid)
Non-Utility Generator*
Utility 2
(Wants to Bid)
Non-Utility Generator*
Utility 3
(Wants to bid)
Non-Utility Generator*

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

Chart 2 emphasizes that a utility that seeks to bid—for example, in this case Utility 2 seeks to bid in the territory of Utility 1 that is conducting a bid—would be required to allow Utility 3 to wheel across Utility 2 to get to Utility 1 that is conducting the bid.

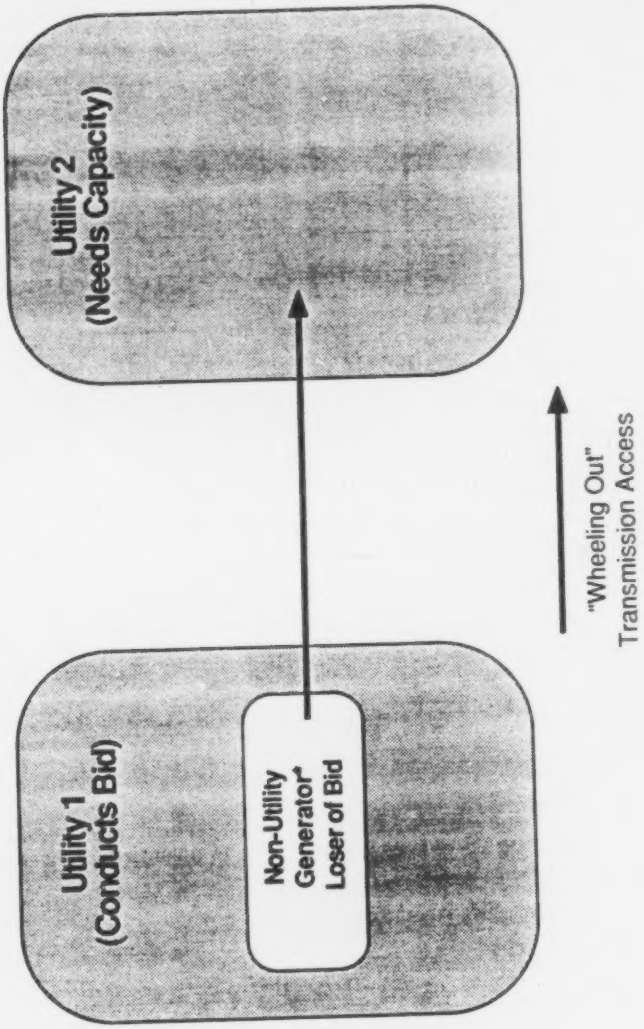
It would also require Utility 2 to allow nonutility generators in the territory of Utility 3 or its own territory to wheel through Utility 2 to get to Utility 1.

This not only furthers competition and thereby efficiency, but it is emminently fair. One bidding party, in this case Utility 2, should not be able to use its bottleneck power over transmission to deny other parties a chance to bid and, therefore, enhance the likelihood of Utility 2 winning the bid through use of that power.

The second proposal, which I have called a "wheeling-out" proposal, would simply require that a utility that uses a bidding process to wheel to the edge of its control area for independent power producers and for qualifying facilities who lose or do not participate in the bidding process; that is, to give them access to other markets. Chart 3 illustrates that point.

CHART 3 (Chart 4 in
Prefiled Testimony)

"Wheeling Out"


Utility 1
(Conducts Bid)
Non-Utility
Generator*
Loser of Bid
Utility 2
(Needs Capacity)
"Wheeling Out"
Transmission Access

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

If Utility 1 conducts a bid and not all bidders win then the losing bidders within its control area would then gain the right, or, if they choose not to bid, they would be given the right, to have their power wheeled to neighboring utilities.

Now, both proposals would be options for states. Both would be subject to the utility's own reliability and economy dispatch constraints. However, the lack of transmission access is, in my view, a potential major barrier to efficient independent power producer development, and the Commission needs to start addressing that problem now.

Now, another major barrier to its development is the specter of regulation under the Public Utility Holding Company Act. That may be a concern that will require early congressional attention. I believe that FERC should take the lead and develop some proposed legislation in that regard.

A greater reliance on a rationally designed, workably competitive market for generating capacity, open to all potential sources of supply, provides a greater hope for efficient, reliable future electricity supply for this Nation than does the current regulatory system.

In conclusion, I do not think we should spend any more time engaging in sterile debates over "big" versus "small", over "large baseload" versus "soft path" that have permeated so much of the dialogue on electricity policy for the last decade.

I really do not know what mix of technologies is going to be the best long-term option, so I would prefer to let market forces and the ingenuity of the private sector make these decisions.

In particular, I do not want to see the Nation rely on a demand-perverse pricing model to signal when and where and how much capacity is needed for the Nation.

I thank you, Mr. Chairman.

[The prepared statement of Mr. Stalon follows:]

Testimony of

Commissioner Charles G. Stalon
Federal Energy Regulatory Commission

before the

Committee on Energy and Natural Resources
United States Senate

at the

Oversight Hearings on PURPA

February 1, 1988
Washington, D.C.

I am pleased to testify on what I think is an important matter of broad public interest, justifying the attention it is receiving in both Houses of Congress, which I welcome. These hearings are especially timely in that the Commission is on the eve of considering what I view as a legitimate first step in a major review of most aspects of its regulation of electricity, a review that will have important implications for the industry and for its regulators at both the federal and state levels. I am pleased to note that your second panel today will include a presentation of state commission views by some very able commissioners. In my view, the hearings on this matter in the House of Representatives last September did a great deal to elevate the level of public debate. I believe these hearings have the potential for an equally important contribution.

In the September hearings, I filed quite lengthy testimony that focused on the fundamental issue that had been the center of public debate since Chairman Hesse publicly suggested her reform initiative last June -- namely whether the traditional regulatory system was "broke," or sufficiently "broke" to justify exploring a new approach to bringing on future electricity supply. My overriding conclusion was that the traditional system is sufficiently "broke" to justify new approaches. I also supported the general concepts set forth in Chairman Hesse's suggested reform package as a sound first step in what I view as a most promising avenue for reform -- a series of regulatory steps designed to remove barriers to the incremental development of a more competitive generating sector of this industry. However, I cautioned that important implementation details would have to be addressed by the Commission to ensure that what appears sound in concept will be workable in practice. My more fundamental cautions, however, were that I did not view the reform package as particularly useful in the long term if it were not to be followed by the long overdue broader review of the FERC's regulation of the bulk power markets and transmission, an initiative that I urged the Commission should commence immediately upon considering the first reform package. I also agreed that this "first phase" package should not exclude consideration of enhanced transmission access, as to which I made one discrete proposal.

I have been advised that it would be helpful to this Committee to present my views on these same basic questions in these hearings. After more than ten years in public utility regulation at the state and federal levels, my views on such fundamental questions as the problems with the existing regulatory structure, have, needless to say, not changed much over the last five months. Hence, this part of my testimony closely resembles that given in September. However, I have had greater time to elaborate and refine my views on, and I pay greater attention in this testimony to, several areas, which I believe are either critical to the debate over the FERC's current reform initiative or where its regulation should go in the future. These include the questions of transmission access and how far it should be part of the current proposal; dangers of bypass; how to deal with the public utilities holding company act (PUHCA) and other perceived barriers to independent power producers (IPPs) development; the potential impact of the Commission's current reform package on state regulation on federal/state relations, and on long-term reliability of utility service.

The Commission has also, since September, benefitted from the hearings and written comments received in the "IPPs Technical Conference" and from some fine analysis of many of the legal and policy issues by our staff. I commend Chairman Hesse for the sound analytical work staff has produced in the last several months, substantially allaying my earlier concerns in this regard. Accordingly, I feel confident that the Commission would be starting down the right path if it were soon to adopt the first package of reforms (though we have yet to deliberate some tough issues). That initiative is based on a now considerable record of the 1987 PURPA hearings, some informal staff consultations with state regulators and potentially affected interest groups, the IPPs Technical Conference, and years of Commission experience in day-to-day implementation of the traditional regulatory system under the

Federal Power Act and the Public Utility Regulatory Policies Act of 1978 (PURPA).

By the same token, I feel strongly that the Commission should proceed forthwith with the broader review and reform initiatives that I will detail below, most of which were addressed in the 1985-86 NOI, and that the reform package before us is only truly meaningful if viewed as a first step in this direction and if other major barriers to a workably competitive generating sector, such as transmission constraints and PUHCA regulation, are addressed aggressively by this Commission and by other bodies critical to their resolution. I will be urging early Commission attention to some of these matters, especially the complex questions of transmission and bulk power pricing, which I view as an absolutely necessary follow-on to this reform package. I will deal with my views on how the FERC should proceed in these areas in greater detail than I did in September.

I am also now more convinced than ever that some level of "supplier" transmission access is an important ingredient, even in this "first phase" reform initiative. I will discuss transmission in greater detail than I did in September. My testimony details two discrete proposals which I believe should be included as options for states in any proposed rules on "bidding" that the Commission issues.

I should stress that I do not view these proposals as "deregulation" proposals. Rather, they are a series of incremental regulatory steps that seek to complement regulation in certain places with the discipline of workably competitive markets. However, even if they all achieve their desired effect, their net result will be a long way from fully competitive electricity markets, even in generation. Hence, these proposals might produce more liberal regulation in some areas, e.g., of bulk power rates, however, it may also produce greater regulatory attention to matters such as antitrust standards in regulation.

I. Introduction: The Issue of Regulatory Reform

The debate about the appropriate economic structure and best means of control of the electricity system is intensifying. That is a healthy response to many of the current problems of the system. Since reform is a purposeful activity, any reform of the system should be premised upon well defined objectives and an explanation of why the objectives are not being effectively pursued in the present structure with the present control systems. Clarity of discussion also requires that distinctions be drawn between end-state objectives and transition paths. Both are discussed herein but the initial emphasis is on why reform is needed.

The theme of the following part of my testimony is that the current system of regulation is broken, that is, it is failing to induce in the electricity industry desirable and attainable levels of economic efficiency. Both the structure and the means of control of the industry probably should be changed. While I am largely persuaded that major changes in the structure of the electricity system are desirable, I am also largely persuaded that time exists for debate, research and consensus-building before dramatic and nonreversible actions are taken.

Performance deficiencies of the system are defined differently by different parties; such differences reflect both different objectives and different emphasis. Clarity of discussion requires that careful distinctions be made. Some of the deficiencies reflect temporary and possibly transient circumstances. Other deficiencies reflect more persistent forces and possibly reflect institutional and perhaps inevitable results of the system. Obviously, one who proposes fundamental structural reforms for temporary and transient problems carries an unusually heavy burden of proof. The argument proposed herein is that the principal deficiencies of the system are not transient but long-standing and institutionalized or reflective of recent social and economic forces that are likely to be durable.

The fundamental question currently before regulators and legislative policy makers who accept the primacy of the economic efficiency objective is whether that objective can be better furthered by pursuing workably competitive markets in the generating sector of the industry, by reforming and improving the quality of traditional regulation, or by some combination of the two. Since distribution and many transmission functions still exhibit natural monopoly characteristics, and will probably be regulated for the foreseeable future, the conclusion to be supported is that a combination of improved regulation and encouraging competitive generating companies (gencos) is desirable.[1]

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[1] "Regulation" here and elsewhere in this testamony is a shorthand expression for "economic regulation," which in turn is defined as government control over entry and exit conditions and over prices. Such controls need not be

(Footnote Continued)

The following pages assert that, while it is crucially important to improve the quality of traditional regulation,[2] especially the quality of pricing, the best hope for significant improvement in the economic efficiency of the system lies in increasing competition in the generating sector of the industry.[3] While it cannot be logically ruled out that such competition could occur within the institutions of regulated generation, such an outcome seems unlikely. Consequently, increased competition amongst generating companies almost certainly requires that nonregulated gencos be encouraged and that the existing industry structure be modified by encouraging some de-integration of the present vertically integrated industry. This objective does not

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(Footnote Continued)
absolute. "Economic regulation" is distinguished from safety and/or environmental regulation, and, further, is to be distinguished from antitrust regulation. The debate at hand is whether to relax or eliminate some or all of the price controls and entry and exit controls in the generating side of the industry. No serious proposals have been made to remove antitrust and/or safety and/or environmental regulation.

[2] By "traditional regulation," I mean the system of regulation that typifies most current state and federal regulation of utility rates and terms of entry and exit. This form of rate regulation typically permits a "revenue requirement" based upon recovery of book costs. These book costs typically include variable costs, an amortization of capital costs on a fixed depreciation schedule and a return based on unamortized capital costs. The elements of the revenue requirement are usually determined without reference to market conditions at the time the prices are to be changed. Common shorthand terms for this ratemaking model, sometimes used herein, include "cost-plus" model and "rate base" model.

[3] Most of my criticisms of pricing in this system refer to the traditional regulatory model that pervades most state retail regulation. This model also permeates the FERC's regulation of wholesale requirements sales, typically between an integrated utility with full service generating capability and a customer utility that is dependent on a long-term basis on the supplying utility for all or part of its generation needs. I do not view these wholesale requirements relationships as part of what I refer to herein as "the bulk power markets" (which have typically been regulated at the wholesale level under the FERC's coordination pricing formula).

require the absence of vertically integrated firms; it does require the presence of many firms that are not vertically integrated.

The debate should not be seen as whether the nation should seek perfect competition or perfect regulation. The technology of the industry will not support a close approximation to economists' definitions of perfect competition; and the experience of a century demonstrates that regulation falls far short of perfection for many reasons; some of which are discussed below. The social choice is probably between oligopolistic competition that can approximate economic efficiency and a tradition-bound regulatory system that has proven resistant to reform and resistant to economic efficiency objectives. While better evidence is needed before nonreversible choices are made, the current record supports the wisdom of limiting the scope of regulation in the electricity industry and expanding the role of competition.

Vertical de-integration of the industry and deregulation of gencos must not be seen as sufficient conditions for creating workably competitive markets among gencos. Nonregulated gencos selling power to distribution companies (discos), either directly or through transmission companies (trancos), on long-term, fixed-price contracts might not only recreate the principal failures of the present system, they could intensify those failures. Deregulation of gencos is not an end in itself; it is only a means to a workably competitive market. Moreover, a workably competitive market is not an end in itself; it is only a means to improve economic efficiency. Achieving that objective should claim the attention and efforts of policymakers.

The three principal failures of the regulatory system that workably competitive gencos could partially correct are pricing failures, management incentive failures and legitimacy failures.[4] Pricing failures are the joint result of regulatory traditions and management incentive failures. The legitimacy failures arise largely as a consequence of the first two. All these failures have long existed, but until recent years were noticed and emphasized only by careful observers of the system, primarily participants and academicians. In recent years these failures have been more widely recognized. Below, it will be argued that the wider recognition came about because the monopoly power of the generating sector of electric utilities has diminished for macroeconomic, technological and legal reasons. The technological reasons are probably permanent, and some of the legal and macroeconomic reasons are likely to be so also. Forecasting failures have aggravated the effects of these forces on the industry and have naturally given rise to the argument that problems caused by such forecasting failures[5] account for the significant industry problems. Such transient problems, it has been argued, cannot justify fundamental changes.

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[4] A legitimate decision by an expert body such as a regulatory agency is one that is accepted by the persons affected by that regulation as reflecting the best expertise available. Failure to maintain that perception quickly undermines the agency's legitimacy as a decision-maker.

As would be expected, the proponents of regulatory objectives that de-emphasize economic efficiency support policy prescriptions different from mine. Such proponents usually emphasize the importance to the nation, or to one or more groups, of objectives that they believe economic efficiency will not produce in desired amounts. Such objectives include "price stability over time," "preferred risk allocation," "unit cost minimization," "subsidized services," and "supra-efficient reliability." Such objectives deserve analysis and evaluation, although it is noteworthy that some of these objectives require that the monopoly power of electric utilities be strengthened. One deduction from these objectives, although not one that all the proponents of the listed objectives systematically draw, is that the preferred policy choice would be to discourage vertical de-integration and to encourage horizontal mergers of existing vertically integrated firms. That option is discussed below and rejected as aggravating current problems rather than ameliorating them.

My testimony accepts economic efficiency as the principal objective of electric utility regulation and argues the case that an industry comprising workably competitive gencos holds the best promise to partially correct certain regulatory failures and to create strong incentives for both federal and state regulators to undertake further corrective measures. I concede that much remains to be learned about both desired end-states, or industry structure, and desired transition paths, before significant policy decisions can be made. However, my principal conclusion is that an industry comprising workably competitive gencos, if that end-state can be achieved, is the best feasible structure for improved efficiency in the electricity industry.

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[5] The term "forecasting failure" rather than "forecasting mistake" is used to allow for the possibility that the forecasts were based on the best forecasting technology available, but still failed to generate accurate forecasts. By contrast, a forecasting mistake -- and evidence indicates many were made -- is a forecast not based on the best available forecasting technology.

I will first set forth my views as to the current state of the electricity industry and its regulation. My fundamental conclusion is that regulation, at least at the federal level, is in urgent need of a thorough re-examination and reform. I then set forth in broad concept my views on the reforms I believe the FERC needs to take in each of the major components of its regulation of electricity. Finally, I offer to the Committee my general reactions and thoughts on some of the issues in what has been described as the "first phase" in a potential reform package, based upon the concepts first set forth in Chairman Hesse's June 10, 1987 speech to the Edison Electric Institute and currently under review by the Commission.

II. Macroeconomic Changes That Have Revealed Fundamental Defects in the Inherited Structure and Regulation of the Electricity Industry

For decades, the electricity industry prospered and grew under the traditional regulatory model. Under this model, most of the nation's power supply (outside of TVA, the power marketing administrations and the small but growing contribution to generation of the coops and municipals) was produced by vertically integrated, investor-owned utilities (IOUs) who were typically granted exclusive franchise territories. The price to the IOU of this grant of monopoly power was the acceptance of a general obligation to serve all retail and some wholesale customers in its service territory and to accept price and financial regulation at both the state and federal levels. This monopoly system permitted electric utilities to reap the rewards of technological improvements, of economies of scale and of a general expansion of markets. Most of these benefits were passed along to consumers through lower prices and increasingly reliable service. The existence of several kinds of public power agencies demonstrates, however, that the performance of IOUs did not satisfy all political demands for electricity service.

As the technology of transmission and control improved, the pressure to gain coordination economies beyond the balkanized, sometimes quite small, markets created by the franchise monopolies was at first met by horizontal mergers and later, after the passage of the Federal Power Act (FPA) and the Public Utility Holding Company Act (PUHCA), was in considerable part met by increasing coordination among utility systems. In advanced form, these coordination efforts comprised power pool and holding company relationships, which were able to take advantage of many of the potential efficiencies of improved transmission and control technologies and, through this, to better utilize existing generation sources and to better plan future generation. In their most advanced form, these regional systems achieved a high level of coordination in not only energy exchanges and generating reserve requirements. but also in capacity planning and construction. It is perhaps not surprising that many in this industry see further mergers and more extensive coordination agreements as the proper path to the future.

Pricing and market mechanisms have been largely ignored as means of achieving greater economic efficiency with one exception to be emphasized later, namely FERC's regulation of the bulk power markets. Errors in pricing by strong monopolists do not produce obviously damaging results to utilities for the major reason that most customers have no option but to purchase from the monopoly utility. Moreover, gross and obvious pricing errors could be reversed over time by regulatory action, and the inability of most customers to move or to arrange for their own generation in the interim normally sufficed to give regulators time to react. However, several developments in recent decades have increased the adverse consequences of pricing errors.

A. The Changing Macroeconomic Environment

The underlying economic and institutional forces that permitted the system to survive and flourish have eroded over the last decade or so and other new forces have put increasing pressure on the system. Three of the most important forces requiring change are macroeconomic developments that have, by and large, been beyond the control of either the utilities themselves or of their regulators:

1. Real interest rates have increased. The macroeconomic policy of the United States from the 1930s until the late 1960s can fairly be described as a low interest rate and high growth policy. High growth rates and high employment rates were not always achieved but low interest rates generally were. In a private enterprise economy, low interest

rates encourage capital intensive methods of production. Under such circumstances it is not surprising that the electricity industry emphasized capital-intensive generating technologies and was willing to build long-gestation projects. It was such projects that demonstrated significant economies of scale in generation.

Macroeconomic policy changed emphasis in the late 1960s in response to persistent inflationary fears. From that time to this, relatively high interest rates have been a part of the U.S. macroeconomic environment. Moody's Aaa corporate bond rates that averaged 2.72 percent in the 1940s, 3.30 percent in the 1950s, and 4.35 percent in the first half of the 1960s, increased to 5.67 percent in the last half of the 1960s, to 8.29 percent in the 1970s and 12.93 percent in the first half of the 1980s. This rate fell to 11.37 and 9.02 percent in 1985 and 1986 respectively.[6] By June of 1987 this rate had risen to 9.32 percent.[7] Furthermore, in the first two decades following World War II there were several Aaa IOUs. Today there are few.

These numbers are persuasive evidence that real interest rates today are significantly higher than real interest rates in the 20 years following World War II. Such increases in real rates of interest tend to decrease the financial attractiveness and economic efficiencies of capital-intensive technologies. For this reason, and others mentioned below, the attractiveness of long-gestation, capital-intensive generating plants is less today than it was earlier. Those who insist upon perpetuating or recreating the generating mix considered optimal three decades ago should be required to demonstrate how their perceived optimum can be so similar when real interest rates are so different.

When contemplating the future of the electricity industry, it is useful to remind ourselves that the art of macroeconomic forecasting has not improved noticeably since the early 1970s. The appropriate industry structure and the appropriate control system (whether regulation or market forces) should, therefore, be one that does not depend on precise long-term forecasts. Consequently, regulators and policymakers should be prepared to continue to live in a high-interest rate society, or a low-interest rate society or, more likely, a society in which interest rates fluctuate more dramatically than they did in the 25 years following World War II.

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[6] Table B-68 "Bond Yields and Interest Rates, 1929-86" Economic Report of the President, (U.S. Government Printing Office, Washington, D.C., 1987) p. 324.

[7] "Interest Rates and Bond Yields," Economic Indicators, June 1987, Prepared for the Joint Economic Committee by the Council of Economic Advisers (U.S. Government Printing Office, Washington, D.C.) p. 30.

More serious and certainly more permanent are two less obvious and less discussed macroeconomic influences on the electricity industry -- the business cycle and international competitiveness.

2. The intensification of the business cycle. Over the last several years the nation has been struggling out of its ninth and most serious recession since World War II, when measured by unemployment rates. Moreover, the last three recessions, those after 1974, have produced trough unemployment rates higher than any of the first six recessions by substantial amounts. In fact, it was not until December 1986, after more than four years of recovery, that the civilian unemployment rate fell to 6.7 percent, the highest rate experienced in the first six recessions following World War II. This pattern of increasingly deep and frequent recessions is an alarming one for any industry. One only has to name such "troubled industries" as banking, steel, automobiles, shoes and agriculture, to make the point.

The political system has not been unresponsive to the business cycle. Each President since the 1950s has engaged in dramatic acts of economic experimentation such as wage and price guidelines, wage and price controls, tax credits, tax cuts and increases, high interest rates and high unemployment rates in efforts to reconcile two conflicting sets of objectives -- the objectives of full employment and rapid economic growth with the objective of a stable price level. It would be naive of regulators and utility executives to believe that this period of macroeconomic experimentation has ended. One can only expect additional dramatic experiments as the nation confronts its macroeconomic problems. Moreover, given the lack of consensus among political leaders over policy, further rides on the roller coaster of the business cycle are likely as the nation seeks low unemployment rates and high growth that also produce unwanted inflation; and then seeks stable price levels that also produce unwanted slow growth and high unemployment rates.

Certain distinctive characteristics of the electricity industry make it more vulnerable than most to macroeconomic instability, namely: (1) its extreme capital intensity; (2) its highly leveraged capital structures and (3) its long lead times for completing major baseload units, which were, until the 1970s, assumed to be the generation plants that best reaped the economies of scale in generation. Macroeconomic forces have combined with these characteristics of the industry, and other influences such as cost overruns (also partly a result of macroeconomic instability) to make supply planning over the last 15 years a nightmare for those utilities that attempted to plan aggressively to assure a reliable and economically efficient supply of electricity for their customers.

3. The growing interdependence of world economies. One of the more difficult adjustments facing the U.S. economy, its business community and its political leaders, has been to recognize and respond appropriately to the fact that the U.S. economy is no longer so large relative to the international economy that the U.S. can pursue domestic programs and business strategies with little regard for their effect on foreign economies or with little concern about the effects of foreign economic policies on our own economy.

One inevitable consequence of this pattern of world development has been the internationalization of many markets. Hence, an increasing number of product and commodity prices are being set in markets beyond national control. Flowing directly from this consequence is a second one -- that the U.S. economy must gain the flexibility to respond efficiently to changes in prices determined in international markets, especially for those products or commodities that are important inputs to the U.S. economy, such as oil.

While seemingly far removed from the relatively balkanized, clearly domestic markets for electric power, these international economic forces have in fact had a major effect on the electricity industry. Firstly, there are two direct effects. One is instability in fossil fuel prices and inability to predict these prices. As has been seen vividly in the natural gas area, when pricing is slow to respond to market forces and is inhibited from doing so by non-market responsive contracts (designed, perhaps, to create long-term price stability), volatile fuel prices can seriously disrupt supply planning and damage the financial fabric of the regulated industry.

The second effect is that monetary policy has become increasingly internationalized. The result is that our economy and, of course, the electricity industry, which traditionally has been heavily dependent on capital markets, must be prepared to live with increasing volatility in interest rates. Both these trends are critical to electric utilities that now find the prices of both their major inputs, namely fuels and investment funds, determined in volatile international markets.

A third major, but less direct, effect is that while the electric utilities themselves do not have to price to compete in international markets (with the exception of those near the Canadian and Mexican borders), some of their major customers, particularly their large industrial customers, do. Where rising electricity prices are major component in the industrials' cost structures, rising prices have helped to undermine their international competitiveness. Utilities have often put economically inefficient pressures on industrial plants either to switch energy inputs; or to self generate; or, as is often the case where neither of these two options is feasible, to simply close down. Hence, even though the utilities have, until recently, enjoyed an almost exclusive monopoly power in their service territories, pricing has become important to their retaining a significant portion of their customer base because some customers, faced with international competition, had lost the flexibility to pass on large electricity cost increases to their consumers. In the last few years utilities, private and public, have been forced to recognize that their monopoly power does not insulate them from all the effects of faulty pricing. However, they have found the old regulatory structure not well suited to an effective response.

How did the electric utilities respond to the 1982 recession, and how should they have responded if economic efficiency was their principal objective? First, we know that the pricing model embraced by the industry and most of its regulators is often charged with being demand insensitive. That is a good generalization, but, in fact, the more accurate generalization is that it is often demand perverse. When demand falls, or fails to rise as forecasted, ceteris paribus, the model calls for price increases.

Consequently, in the 1982 recession, and other recessions as well, the electric utilities did not lower their prices as economic efficiency demands. In pursuit of "just" prices, they raised them to protect their "just and reasonable" earnings. In so doing, they refused to postpone profits and, thereby, perhaps to ease their customers' adjustments to distressful economic circumstances. Instead, they aggravated their customers' adjustment problems, and also aggravated the nation's competitive problems in an increasingly interdependent and competitive world.[8]

Clearly, in a world of OPEC, a world of intense business cycles, a world of increasing international competitiveness, this nation should not tolerate an electricity industry that builds and prices its services with little or no regard for demand conditions. Adjusting to economic forces beyond national control is a necessity in such a world. The electricity industry and its regulators must facilitate such adjustments by creating demand-sensitive prices, and not do as they have done in recent years -- increase IOU margins when demand falls and narrow them when demand increases. It will be argued below that this inappropriate pricing is primarily the result of the tradition-bound, cost-plus regulatory pricing model. The failure is in the system, not in any particular group in the industry.

B. Adjusting to the Changed Macroeconomic Environment

Some of the macroeconomic changes of the last two decades may be reversed soon; others are probably permanent. Interest rate levels, for example, may return to 1950 levels, although I think that is unlikely. Intensified business cycles are, I believe, more permanent features of the economic landscape, as is intensified international competition. These permanent changes are partial justification for restructuring the electricity industry. They may not constitute the principal justification for such restructuring, but their existence requires any defender of the status quo or the status quo ante to explain how the traditional regulatory system can be changed to accommodate the needs of the new macroeconomic climate. Any argument that says the system can continue to build and price as the industry has in the past must justify the burden that such construction and pricing imposes on IOU customers when customers are adjusting to reduced economic opportunities.

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[8] One estimate of the significance of such demand-perverse pricing is included in a speech by Mr. Jerry D. Geist to the annual convention of the Edison Electric Institute in June 1987. The speech, titled "Place Your Bets: Three Paths to the Future," noted that the real price of electricity increased 2.2 cents/Kwh between 1980 and 1984. Of this increase, 0.6 cents/Kwh, or more than 25 percent, was attributable to "demand downturn."

III. Regulatory and Institutional Changes and Deficiencies

There are, of course, those who see the traditional structure of the industry and the traditional regulatory system as adequate and question whether competition among gencos is really a viable alternative. A more detailed look at trends in the electric industry itself over the last decade or so suggests an answer to such questions.

A. Forces Lengthening Gestation Periods

Not only have real interest rates increased, but gestation periods for most generating plants and transmission lines have also increased. This phenomenon is probably more important than interest rate increases in tilting efficient generation methods away from capital intensive ones. The principal causes of gestation period increases are regulatory and institutional. Environmental regulation and regulatory decision processes have substantially lengthened decision periods and added to the capital cost of certain generating and transmission technologies. Expanded administrative procedures and an increased emphasis on due process and sunshine procedures have induced larger and more complex records. This has further lengthened decision times.

B. Forces Subverting the Traditional Pricing Model

1. Rising cost of generation. The real cost of new or replacement capacity, particularly for those forms of large baseload capacity that for decades were viewed as an important source for a declining cost and more efficient industry, has escalated dramatically. Perhaps the most extreme example is nuclear units that are frequently coming into service at costs ten times those originally projected when planned.[9] The significance of this turnaround in the economics of large nuclear units, once seen as the main hope for cheaper electricity, is illustrated by the number of major utilities whose financial status has been jeopardized by lengthening gestation periods on a single plant. Moreover, the trend is by no means limited to nuclear power. While there still may be some economies of scale to be gained in the generating units of this industry, it is doubtful that they outweigh the

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[9] A major element in these cost overruns is, however, attributable to accumulated interest, which has been increased both by planning miscalculations, lengthening gestation periods and by higher interest rates.

various factors increasing construction costs. The bottom line is a gloomy one -- the electricity industry is not likely to be any longer a declining real cost industry.

2. Increasing volatility of demand. The second major problem plaguing the industry in the last decade has been increasingly volatile demands that have made supply planning a nightmare for both utilities and state commissions. Longer gestation periods require longer forecasts. Forecasting failures easily result in massive excess capacity on some systems and, consequently, induced "rate shock" caused by the new plants that are not needed. Erroneous forecasts, falling demand and the traditional regulatory pricing model can easily combine to drive utilities into a "death spiral." With utility prices based on a cost-plus model and rigid non-market responsive pricing, falling demand induces price increases that further lowers quantity demanded, which in turn induces more price increases, etc.

The pricing problem is illustrated by focusing upon just one component of what typically comprises a utility's "revenue requirement" in the cost-plus model -- the way it recovers its capital costs and earnings. Capital cost recovery, has, of course, become an increasingly important component of recent major rate increases as capital costs have escalated. While regulatory commissions scrutinize a utility's rate of return in excruciating detail, they have until recently almost completely ignored the method by which utilities depreciate assets, i.e., the time pattern by which they recover their capital costs. Under the traditional "straight line" method, utilities are locked into a rigid and heavily front-end loaded pattern of capital cost recovery that tends to create prices that respond perversely to the business cycle. In recessions, the pricing model tends to increase margins, and therefore prices, to recover capital costs from the declining demand base. The model, moreover, reduces margins in booms when costs are recovered from a growing demand base. This pattern is exactly the opposite of what is required for efficient pricing.

In an industry as capital intensive and as highly leveraged as electricity, even a percentage or two drop in overall sales revenues can have damaging effects on a company's financial condition. Such drops in demand, in my view, were at least as big a contributor to the serious financial crises of major utilities in the early 1980s as were their increasingly expensive construction programs. It is not surprising, therefore, that both utilities and financiers resist price reductions that would compound such financial problems. Consequently, they support pricing models that are demand-perverse.

Demand-perverse pricing models, such as those inherent in the traditional regulatory system, become unsustainable when competition is introduced in the industry. That, no doubt, is why some would prefer to believe that competition will go away, or that it should be prevented from spreading. An examination of two further trends in the electricity industry over the last decade should dispel such thoughts.

3. Growth of bulk power markets. FERC data demonstrates what one would expect from faulty forecasts; namely, bulk power markets are a growing phenomenon. In the 22 years between 1961 and 1983, inter-utility exchange transactions (which the FERC calls "coordination" transactions) increased about sevenfold and related wheeling transactions in that period increased about twelvefold. One utility in the 1985 electricity Notice of Inquiry[10] told the FERC of a sixteenfold increase in its coordination sales over the last ten years. The FERC now regulates about 30 percent of all the Kwh sales regulated in the country. A major part of this comprises coordination sales. Moreover, the variety of coordination transactions filed with the FERC over the last decade has expanded. Utilities now engage not only in short-term exchanges of energy and reliability, but also contract for longer term capacity as well.

One of the major reasons for this increase has been growing disparities between regions and even between neighboring utilities in both the availability of capacity and the price of power. The combination of disparate fuel prices, increasingly expensive capacity additions and, in particular, demand projections gone awry, has given some utilities surpluses of power while others are short of capacity or have very high marginal costs of producing power. Hence, the incentives to purchase in order to lower energy costs or to avoid capacity additions in an age when forecasting is risky, have grown tremendously. While current surpluses will, of course, dry up over time, there is no assurance in an era of increasing macroeconomic uncertainty that planning will turn out any better in the future and that new surpluses and shortages will not emerge.[11] One important thing to remember about at least two of the macroeconomic forces stressed -- the intensification of the business cycle and increasing international interdependence (and the related volatility in fuel prices) -- is that they are likely to be permanent phenomena that will continue to plague the industry; and they will continue to induce serious inefficiencies if electricity continues to be priced to end-users and to wholesale customers in its present manner.

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[10] Notice of Inquiry, Regulation of Electricity Sales-For-Resale and Transmission Service, Docket No. RM85-17-000; Phase I, issued May 30, 1985, reported at 31 FERC ¶ 61,228; Phase II, issued June 28, 1985, reported at 31 FERC ¶ 61,376.

Another development of significance to growing and probably more competitive bulk power markets, which is the product of the industry's troubled economics of the last decade, is that few major utility systems seem to be planning major baseload additions under the current regulatory system.[12] Yet even under the most modest scenarios for future load growth, there will have to be substantial generating plant construction to meet increased demand and, of course, to replace aging capacity. On the other hand, some utilities have shown an inclination to build, not only for their own needs but also for export, and they have indicated that they would prefer to do so on an unregulated basis. Others have shown an increasing inclination not to build but to import on a permanent basis.

Moreover, there is the growing phenomena of nonutility generators, both qualifying facilities under PURPA (QFs) and other non-PURPA independent power producers (IPPs), who increasingly look as though they will become major and permanent players in the electricity industry. These phenomena portend a growing permanent bulk power market, independent of the life of current utility surpluses. While this market will be incremental to the utilities' existing generation bases, it is potentially massive. In 1982, the Department of Energy estimated that new capacity needs by the year 2000 might require about a trillion dollars (in 1982 dollars) investment in new capacity. While subsequent events have indicated that that figure is probably too high, one could cut it in half and still be looking at a massive investment in new capacity in the not too distant future. Indeed, even the most modest new capacity need forecasts run into the hundreds of billion dollars. The 1986 original cost asset base of the investor-owned portion of electric utility industry alone was 445 billion dollars. This is probably the single biggest industry in capital terms in the United States. To replace and expand this capital stock, is a massive undertaking. The decision as to how it should best be undertaken is therefore a serious one, requiring careful consideration of all influences.

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[11] Since the art of macroeconomic forecasting has not noticeably improved since the early 1970s, the forecasts currently used in the industry as well as those embodied in this testimony should be viewed skeptically.

[12] There are some indications in recent trade reports of utilities starting to plan baseload additions more modestly sized than those planned in the 1960s and 1970s.

I am not prepared to be dogmatic as to what future supply options will best serve the interests of the nation in the 1990s and the next century. Nor am I anxious to engage in the related rather sterile debates of "big" versus "small" and "large baseload" versus "soft path" that have permeated so much of the dialogue on electricity policy for the last decade. I really do not know which is going to prove to be the best long-term supply option. I would feel safer letting market forces, where we can be assured they will operate efficiently or more efficiently than the current regulatory regime, and the ingenuity of a competitive private sector, make those decisions. I would prefer not to rely on the demand-perverse pricing models of the past to signal when, where, and how much capacity is needed.

Regulators, because of the traditions and procedural constraints under which they operate, can make so few economic decisions really well that it is unwise for them to regulate where market forces can do the job reasonably well. Moreover, it is the degree to which this industry can become competitive, and do so efficiently, over which regulators will have considerable control. Hence, special attention by regulators to the role of competition in this industry is appropriate. Bulk power markets are already quite competitive, and, with the growth of a wider array of suppliers, they have the potential of becoming more competitive. Regulators will face many tests in this transformation. While competition is a growing, and I think inevitable, force in this industry, it can certainly be constrained and its development distorted by institutional and regulatory barriers, such as the inability to build transmission facilities where needed, to price transmission services correctly or to provide suppliers access to those services where necessary.

4. The growth of PURPA power. The fourth recent trend that has shaken this industry is, of course, the phenomenal growth of power generated or offered by facilities qualifying

under section 210 of PURPA (QFs). Most of this has occurred since the Supreme Court in mid-1983 removed the chilling effect of major legal challenges by utilities to the FERC rules implementing section 210. As Chairman Hesse has well summarized in her speeches and testimony, the growth of PURPA power in certain states has so exceeded the expectations of the framers of the 1978 statute and of the 1980 FERC rules as to almost mandate a review by this Commission of how the section 210 scheme has developed and how it is meshing with other parts of federal and state regulation of electricity. What has become increasingly clear since 1984 is that this provision of the 1978 National Energy Act, which was expected to produce a small, off-system adjunct to the utility's role as a major provider of future electricity supply, has so grown as to almost completely fill the demands for incremental generating capacity in some states.

This development has created a variety of tension points between state and federal regulation, in particular between the increasing interests of state regulators in power supply planning and the mandates of the federal PURPA scheme, most of which are implemented at the state level. For example, the California Energy Commission (CEC), which had originally embraced PURPA power as a principal solution for future capacity as late as 1984, began, within a year or two of its rapid growth in that State, to see aspects of PURPA as causing major problems in the CEC's ability to plan the State's energy supply. Furthermore, several states have apparently had difficulty in implementing parts of the FERC's PURPA rules, leading to concerns expressed about over-pricing of power utilities purchase from QFs, payments of capacity credits to QFs when utilities do not need capacity, and excessive reliance on gas-fired QF capacity in future state supply mixes.

One of the principal virtues of the PURPA reform package proposed by Chairman Hesse (which includes clarification of the avoided cost pricing and capacity credit issues) is that it might permit state commissions and planning bodies to develop a rational basis upon which to reconcile their own supply planning prerogatives with the mandates of PURPA, and to do so on a basis that should ensure both a reliable and efficient mechanism for producing capacity additions.

C. The Disappointing Results of the PURPA Title I Reform Effort

Contrasting how developments under section 210 of PURPA exceeded expectations with the very modest results achieved in retail pricing reform under Title I of PURPA is, I think, instructive as to how ossified the regulatory system has become. It should be recalled that most of the Congressional attention and much of the initial post-enactment attention of state commissions and of the Department of Energy's intervention and funding programs went into Title I. Title I required state commissions to undertake a major review of their retail pricing of electricity and to consider a variety of economics-based pricing principles, such as marginal cost pricing, time-of-use pricing and interruptible rates. After considerable efforts by state commissions and utilities, the results were fairly modest. From my experience in Illinois, I can attest to what a painstaking and excruciatingly difficult task it was to get the regulatory system -- both the Commission, the utilities, and the customers -- to accept even the basic rudiments of time-of-use pricing; and I was dismayed recently to see one of the major utilities in Illinois proposing to discard a major component of that reform. I want to stress that I do not think Title I was a bad idea; rather, it was a good idea that, in many states, floundered on the entrenched thinking and rigidities of the traditional regulatory system. In a few states, it produced significant advances in pricing, though in several of those reform was already under way when PURPA was enacted.

If there is any clear message from looking at PURPA as a whole, it is that efforts to improve pricing, even in face of the clear needs to do so, were extremely difficult to achieve and the results were very modest.[13] Yet, a single provision that was seen as opening up an avenue to the electricity markets for a relatively discrete group of technologies, not viewed as being a potentially large source of supply, has in some areas already come to dominate the future supply scene. It is not surprising, then, that this has caused considerable uncertainty and fear amongst those who still believe the traditional regulatory system can be reformed to meet future needs.

IV. Interim Summary and Conclusions: Changes Affecting the Traditional Regulatory Structure

The analysis up to this point can be summarized and the principal conclusions restated in eleven brief assertions:

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[13] It is worth noting that the FERC was not required by Title I to review its pricing policies and that it has not to date gone through a thorough reassessment of these policies.

1. Increasing social concerns with safety and the environment have combined with the lengthened decision processes of our participatory democracy to lengthen gestation periods of, and therefore to increase the relative costs of, capital intensive generating plants and transmission lines.

2. These changes, and certain macroeconomic changes, some of which cannot be seen as temporary, diminish the significance of the natural monopoly justification for economic regulation of electricity generation.

3. Dissatisfaction with the current system of regulation amongst utility executives and utility financiers is common, perhaps even widespread. Some utility executives are warning that an economically efficient mix of generating plants will not be constructed by utilities under regulation if regulation remains unchanged.[14]

4. The demand perversity of the institutionalized pricing model aggravates economic adjustment problems of utility customers and utility suppliers in an increasingly competitive world economy that requires, instead, improved adjustment performances.

5. The demand perversity of the institutionalized pricing model encourages alternative gencos to enter the business even when a regulated utility might be able to produce the same output at a lower social cost.

6. Section 210 of PURPA has weakened the monopoly power that formerly permitted regulated utilities to use discriminatory prices and discriminatory service terms to discourage alternative gencos and to sustain inefficient prices.

7. The attempt embodied in Title I of PURPA to persuade regulatory agencies to reform the institutionalized pricing model produced only small gains in efficiency.

8. The regulatory reform requested by some utilities, namely greater assurances that, regardless of demand conditions, their capital costs will be recovered and their earnings will be stable, promises to aggravate the demand-perversity of the electricity pricing model.

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[14] The June 1987 speech by Mr. Jerry D. Geist, cited in footnote 6, is an example.

9. The growth of bulk power markets, even under the limited circumstances allowed and the efficiency-limiting pricing model used by the FERC therein, demonstrates the ability of competing firms to exploit economies of coordination when the structure and control system permits.

10. One set of conclusions that appears inescapable from the above analysis is that the inherited regulatory system:

i) is falling far short of inducing efficient performance from the electricity industry;

ii) is not responding constructively to recent changes in the macroeconomic and legal environment; and

iii) has proven resistant to efforts to reform its pricing models.

11. Another set of conclusions that appears inescapable from this analysis is that:

i) The natural monopoly characteristics of generation, which is the principal economic justification for its regulation, have diminished and perhaps disappeared in the last two decades.

ii) Improved technologies of transmission and control have permitted substantial bulk power markets to develop and in so doing have demonstrated the possibilities of further coordination efficiencies.

The final conclusion to be drawn from this analysis is that the inherited structure of the electricity system and the inherited system of regulation exist by grace of inertia. They lack an intellectual economic defense.

V. Regulatory Rigidities and Reform Possibilities

I make these assertions as to the failures of the traditional regulatory system not in any effort to ascribe blame to those who managed the utility systems in the past or those who currently manage them, or to those who designed this system of regulation or who currently regulate under it. It is enough to say that circumstances have passed it by. My criticism is directed only to those who refuse to recognize the current realities and cling to the past by either believing that the old system is not broken at all or that, if it is, it can be readily fixed.

The realities I have described do not, I want to stress, necessarily lead to a conclusion that the old system must be torn down completely or replaced by something completely new. I have always been skeptical of some of the grandiose and ambitious models for reform of the industry that we saw in the early 1980s, such as the forced vertical de-integration of integrated investor-owned utilities in order to separate out the natural monopoly discos from the potentially competitive gencos. One of the merits of proceeding with reforms such as those currently under consideration at the FERC is that they do not require tearing down the old system but rather they would leave intact the existing asset base of the industry and focus on a better way of bringing into existence new increments of supply. This method of reform should serve to keep the utilities financially intact and let ratepayers continue to reap the benefits of their successes of the 1950s and 1960s; however, it would not force utilities to repeat all the mistakes of the 1970s and 1980s. A more competitive generation market need not preclude utilities from building again, and those with current low cost excess capacity or the ability to build efficiently should be able to compete very effectively.

A second valuable benefit of incremental reform movements is that they are easier to reverse if experience proves them inefficient. Each of the elements of the proposed reform package, or of those reforms I will argue should closely follow this one, seems to me quite easily reversible should it not produce the more efficient results intended. Moreover, as the incremental development of new supply under a more competitive framework will occur gradually, especially as many regions currently have excess capacity, there appears ample time to adjust or reverse and little danger of significant damage from unmet expectations. That is in stark contrast to the damage that false load expectations have imposed on both utilities and consumers over the last decade under the traditional system.

A. Strains and Tensions in the Existing System

Before I turn to the policy direction I believe the FERC should take, I want to call attention to two forces currently at play that threaten the old system, and will indeed damage it badly if the FERC, in concert with state commissions, does not move with some facility to reform the regulation of electricity.

There two forces are:

1. Pressures and incentives on utility customers to seek bypass of traditional suppliers or to pursue possibly uneconomic self-generation options; and

2. Growing tension between state and federal regulators over regulatory policy and jurisdiction.

Both forces have been the focus of considerable attention, concern, and, candidly, undue emotion, in the growing debate over the future of electricity regulation.

Accurate analysis of these forces, and how they arise from the traditional regulatory system and the troubles it has faced over the last decade, is critical to a balanced evaluation of the debate I have suggested should be central to national policy in the electricity area -- whether to continue the regulatory status quo, perhaps with some reforms that do not challenge its basic structure and tenets, or whether to change the regulatory structure with a view to permitting a more competitive generating sector. This analysis is particularly pertinent to the PURPA reform package Chairman Hesse is asking the Commission to consider because, ironically, early critics of the package have advanced its alleged potential for exacerbating both these forces as major reasons to reject it. In fact, the proposal, if implemented effectively, should have exactly the opposite effect when its benefits start to be felt -- lessen the pressure for bypass and lessen State/federal regulatory tension. Of course, as the proposal itself is incremental and gradual in effect, its beneficial effects on these problems will be seen in the longer rather than the shorter term. Moreover, as the reform package builds upon the unique societal experiment of a State/federal regulatory partnership embodied in PURPA, there will inevitably be significant but not irresoluble tensions in the course of joint implementation of the package. The concerns that the FERC's initiatives, designed to permit a more competitive generating sector, will exacerbate these forces appear to be based on a fundamentally mistaken premise as to their root cause and, apparently, some basic confusion on what these initiatives comprise and are designed to achieve. In fact, these problems are not the result of emerging competition and the FERC's initiatives will not exacerbate them. Because of the attention these concerns have received, it is worth my dwelling briefly on my reasons for this conclusion.

1. Pressures and incentives for bypass and uneconomic self-generation. Many of the pricing errors described earlier have created incentives for new suppliers to break into previously utility-dominated markets. However, far more

threatening (at least currently and in the near-term) to existing utility systems, these errors have also created strong incentives for requirements customers, both at the retail and wholesale level, to escape their existing utility systems and seek new sources of supply. This is, of course, one of principal incentives behind the demands for greater wheeling and transmission access at the retail and wholesale requirements level.

It has also been one of the principal incentives for so many major customers, especially industrials, to have increasingly pursued the self-generation option in the 1980s, reversing a long historical trend away from self-generation towards reliance on utilities for their electricity needs.[15] Of course, PURPA enhanced the ability of customers who can cogenerate to pursue this self-generate option.[16] However, I believe the underlying cause was the failures of the traditional regulatory system, especially the demand-perverse pricing in the early 1980s in when many utilities substantially increased prices at the very time energy-intensive industrials were struggling through a serious recession and facing increasingly tough international competition. My sense is that most industrials would prefer to continue to rely on their traditional utility suppliers but that many have started to conclude, with reluctance, that they can no longer rely on the traditional system to bring them power at the lowest reasonable cost, consistent with reliability requirements, and to price power with sensitivity to their needs. They see the potential for dramatic improvements in their energy costs which for some of these firms are critical to their very existence, by getting away from their traditional suppliers. They do this by seeking either to self-generate or, where they can, to bypass the local utility and reach other lower "cost," today most likely other utilities with lower cost structures or QFs. Hence, the tremendous pressure to "bypass" the local system, through either self-generation or wheeling from other suppliers, is very much the product of the traditional system. A utility response that either ignores or seeks to contain this pressure (which can only be partly effective because self-generation is always an option) risks creating an explosive pressure that will later require large and dramatic change in the regulatory system.

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[15] Onsite industrial electricity generation declined, as a proportion of total U.S. generation, from 58% in 1900 to 15% in 1950 to 5% in 1974. U.S. Department of Energy, Cogeneration: Technical Concepts, Trends, Prospects; Washington, DC: DOE, 1978, DOE-FFU-1703 at 22. See also Lock, Encouraging Decentralized Generation of Electricity: Implementation of the New Statutory Scheme. 4 Solar Law Reporter, 705 at 707.

[16] Section 210 of PURPA, by requiring utilities to provide back-up or standby power to QFs, removed, in theory at least, a major barrier to industrials effectively pursuing the self-generation option through cogeneration.

It should be remembered that it was the industrial consumers, exercising their fuel-switching options, that did so much to break down the old system of natural gas regulation and led inevitably to the Commission's actions in Order No. 436. In the electricity area, the ability of the industrials to go off-system, to "vote with their feet" as some of their representatives put it, is probably more modest than in the natural gas area. It essentially amounts to the option to self-generate; in most cases, retail customers cannot get access to other suppliers. There are, as we have heard on numerous occasions from utilities, legitimate reasons why utilities and their state commissions are reluctant to permit this form of wheeling. If done on a large scale, it has the damaging potential for exacerbating excess capacity situations and for leaving large capital costs for a smaller base of remaining customers, causing further increases in their rates, and, hence, perhaps yet more bypass on financially strained utilities. This creates the alarming prospect of "death spiral."

However legitimate these concerns, I think the worst possible response to these pressures for bypass has been from those who assert we should restore the traditional system in all its former glory with all its monopoly and monopsony power. To be effective, that would require repealing PURPA and resurrecting utility monopoly power over standby rates to shut down the self-generation option and, as an unfortunate byproduct, to kill most prospects for an expanded bulk power market comprising, in part, QFs and IPPs. Not only is such a response economically indefensible, but it will surely act as a catalyst for a growing and powerful coalition of large retail consumers, municipal and cooperative utilities and QFs and IPPs, some of whom will demand a far broader transmission access regime than the FERC is likely to contemplate in reforming the bulk power markets.

Incremental movements towards a more competitive and efficient generation and bulk power market will do nothing to intensify these pressures or to enhance the means of bypass, but, if effective, will reduce the incentives and pressures to bypass. In my view, if the FERC moves effectively on this and other initiatives I will suggest to improve the bulk power markets, many industrials, seeing movement in the right direction, might give the existing regulatory system more time to adjust. They might avoid seeking the bypass and self-generaion alternatives that might not be economic at all if a more efficient bulk power market and better pricing existed.

Hence, probably the best protection against bypass in the longer term is to move now on incremental reform of the bulk power markets. The surest way to threaten the basic structure of the existing system is to resist these changes and also to try to suppress the forces seeking bypass by resurrecting the old system.

To some extent, the incentives for industrials to leave utility systems has been lessened by a recent increase in the willingness of utilities, and their state regulators, to permit various forms of discriminatory pricing to industrials, such as "industrial incentive rates" and discount rates conditioned on industrials' agreeing to postpone or cancel cogeneration developments. While this pricing may be a useful short-term response in certain cases to the threat of bypass, I seriously doubt that it provides a legally and politically viable long-term solution to that threat. I tend to agree with one characterization of these responses as "band-aid" solutions.

2. Federal/state conflicts in the current system. Another problem that has been greatly exacerbated by the economic pressures on the industry over the last decade or so, and the inability of the traditional system to deal with these pressures effectively, has been rapidly escalating tension in relations between the FERC and state commissions. These tensions were most dramatically focused on the Middle South and American Electric Power (AEP) cases.[17] Those cases, it should be recalled, arose out of circumstances quite similar to those I have described as generally plaguing the industry over the last decade or so. However, because the planning

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[17] See especially AEP Service Corp., 32 FERC ¶ 61,363 (1985); Kentucky Power Company, 36 FERC ¶ 61,227 (1986); Middle South Service, Inc., 31 FERC ¶ 61,305 (1985), reh. denied 32 FERC ¶ 61,425 (1985), affd. Mississippi Industries v. FERC, 808 F.2d 1525 (D.C. Circ. 1987).

decisions of these utility systems were made on an integrated, interstate basis, essentially beyond the reach and control of the state commissions concerned, they quickly evolved into what has been seen as a major state/federal conflict over jurisdiction.

However, the Middle South case in particular was in reality a conflict between certain states as to which state's ratepayers should bear the costs of a major and expensive nuclear unit, built by the interstate holding company, that would provide capacity that none of the interstate operating companies needed in the near-term and that was, in any case, far more expensive that the commissions felt justified. There were neither the bulk power markets, nor the pricing structures, nor the decisional processes to resolve this conflict at the state level. Accordingly, the FERC found itself in the unwelcome role of arbiter of a difficult allocation of costs which far exceeded the benefits that any of the parties saw in the capacity allocated to them.

I do not want to dwell here upon the legal complexities of these cases I rather to stress that the tensions underlying them are really based very centrally in two inconsistent approaches to regulation and industry structure that are inherent in the traditional regulatory system as codified in the 1935 Public Utility Act (PUA), which comprised both the Federal Power Act (FPA) and the Public Utility Holding Company Act (PUHCA). One model was that of the instate operating company, with a state-sanctioned retail franchise and obligation to serve, primarily acceptable to that state's ratepayers and the state commission representing their interests. The other model was that of the interstate company, planning, building and operating on essentially integrated basis. The former model or approach, of course, requires that state commissions jealously guard their traditional jurisdiction over future power supply in order to make effective their ability to protect ratepayers, an interest that increasingly focused on the utility power supply planning itself as the planning problems of the 1970s and 1980s became apparent.

In contrast, the FPA imposed some very explicit mandates on the FERC to encourage greater levels of coordination and non-market integration between utility systems and especially to encourage the sorts of power pools and integrated operations that reached their zenith in those multi-state holding companies which had been restructured but preserved under PUHCA. This model had very little to do with competition; indeed, competition amongst member utilities is creating great tensions within some of the major existing power pools of unaffiliated companies. Hence, forced into an arbitration role in the Middle South, and, potentially, in the AEP cases, the FERC reached the legal conclusions that the FPA precluded permitting state commissions even to engage in the ex post facto prudence review function they had typically fulfilled in monitoring the wholesale purchase decisions of unaffiliated utilities under their jurisdiction.

As a former state commissioner, I can fully understand how frustrating that result must be to those commissions in the states affected; and, I do not believe the present system allows for a satisfactory long-term result. Indeed, and this is my real point, if the present system continues we might see more such conflicts between state and federal jurisdiction, often in reality representing conflicts between states, without any fully satisfactory mechanism to resolve them. That, too, could provide a major threat to entire traditional regulatory system if the issue is not adequately addressed.

A movement in the direction of more efficient and competitive bulk power markets would, at least, serve to ease the economic pressures and, certainly, to avoid many of the unfortunate allocations of losses that the present system has produced. For one thing, efficient bulk power markets that includes a major independent generation component would, if designed properly, shift a great deal more of the risk for planning failures to those on whom it is rightly placed -- the developers of new generation facilities and their equity financiers. It was exactly the tendency of the existing regulatory structure to push most such risks downstream to the end use customer that produced the unpopular loss allocation that the FERC had to make. Of course, as we know, notwithstanding the FERC's legal decision, the state commissions on the Middle South system simply refused to pass through all those costs to the customers and Middle South itself had, in most cases, to enter into settlement agreements which allocated part of the loss to its shareholders. Allocations of losses produce few winners.

Ironically, some critics have asserted that growth of an effective bulk power market and, in particular, the PURPA reform proposal currently under consideration at the Commission, will serve to further undermine state jurisdiction and to exacerbate the sorts of tensions we saw in the Middle South in the AEP cases. The implication is that more competition will lead perhaps to more FERC jurisdiction, but certainly to less state control. In one sense, of course, any greater reliance on competitive forces leads to less control by regulators. However, I think the merit of the current reform package is that it gives states an opportunity that they have not to date enjoyed of utilizing a form of limited competition between future suppliers of generation to produce more efficient planning and generation supply results than the traditional system has yielded. Moreover, the traditional right of prudence review of wholesale purchase decisions, which the states lost in holdings company power pool situations as a result of the Middle South and AEP decisions, will, in my view, be a very important component or a more efficient, competitive, bulk power market. There is nothing in FERC's current proposals or where I suggest FERC should go that will change the traditional distribution role of the utility. It will still enjoy monopsony and monopoly power under state regulation. Exactly because most of its distribution function will not be subject to competitive disciplines, it will be all the more important for states to exercise vigorously their prudence review function of purchase decisions in order to ensure that the distribution utilities make the most efficient use of competitive generation markets. Hence, as in the natural gas area, I suspect we will see the FERC fully recognizing the importance of this ability and seeking to protect it from preemptive effect of FERC's own decisions.

`However, if utilities are to be subjected to the potential for prudence review of inefficient decisions, they should equally be rewarded for efficient purchase decisions. In this respect, I think state commission will have to make a major change in the way they have traditionally treated wholesale purchase and sale transactions in retail rates. They will have to develop mechanisms which adequately reward utilities, and that means utility shareholders directly, for efficient purchase decisions rather than passing through all the benefits of those decisions to ratepayers. That will be particularly important for those utilities who do not build as much in the future but rely increasingly on purchases in a bulk power market to meet future supply needs.

My conclusion on the state/federal question is that it is critical to penetrate beneath the rather superficial legal battle over state v. federal jurisdiction that has dominated the Middle South and AEP cases and to recognize the inherent tension between conflicting regulatory approaches in the traditional system. It is equally critical to recognize that a movement towards competition in generation is likely to reduce rather than increase these deep underlying tensions. Of course, in any regulatory scheme that essentially comprises a partnership between state and federal commissions, as PURPA does and as an expanded PURPA "all source" bidding system would, there will be ongoing, but I believe manageable, tensions on practical implementation details. However, it is the fundamental and seemingly intractable tensions in the old system that I believe threaten it most.

B. Needed Regulatory Reforms

I support Chairman Hesse's proposal that the FERC move with some facility to deal with the major components of the FERC's regulation of electricity; in my view, they all need attention and reform. Indeed, I view some of these components as so urgent and closely linked to the long-term effectiveness of the reform package currently under review as to mandate that we review them immediately after we have issued proposed rules on the current reform package (assuming we do). I want to briefly survey[18] the general direction of reform which I believe the FERC needs to take in each of its major areas of regulation.

1. Reform of the pricing of coordination services. The pricing of coordination services was one of the principal focuses of Phase I of the 1985 electricity Notice of Inquiry and an area in which we received a detailed and instructive record from all parts of the industry. I am gratified that Chairman Hesse has, in recent announcements, recognized the importance of this record upon which a good deal of the staff analysis must rely. I believe the Commission should move with some facility to rationalize the increasingly liberal pricing practices that staff has developed over the years for the coordination markets in situations where arms-length bargaining between nondependent traders in power exists. Many commenters, including most of the investor-owned utilities, conceded that Commission practice had already created a considerable level of liberalization. They contended that we should at least rationalize and codify this level. Some argued we should extend it further.

I believe the Commission should explore the feasibility of market-based negotiated pricing between actors in the market in any situation where we are able to identify a workably competitive bulk power market. If we are able to create meaningful categorizations of markets in terms of their competitiveness, it is not certain that our old categorization of "coordination" and "requirements" service would continue to make sense. I recognize that developing clear criteria for such a determination will require considerable analysis. I suspect that our staff has advanced that analysis considerably since the 1985 Notice of Inquiry. I also think that we may gain some valuable information on this determination from the Western System Power Pools (WSPP) experiment, although I do not believe that the expected results from that experiment should lure us into complacency, distract us from our own analytical effort or that its timeframe should slow down our generic effort.

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[18] I suspect that, if the Commission moves into these other areas of potential reform, we will have opportunities to expound our thoughts in greater detail.

One of the most difficult and controversial issues addressed by many commenters in the 1985 Notice of Inquiry was whether any market can be viewed as "workably competitive" without providing for access to transmission facilities by competing suppliers. Again, the WSPP experiment may yield some useful insights into the degree to which some right of transmission access, accompanied by adequate transmission capacity, is a sine qua non of a workably competitive market and, hence, the degree to which we can permit market-based bulk power prices (and, perhaps, transmission pricing) without it. My tentative view is that it is unlikely that workably competitive bulk power markets can be created without some supplier access rights.

It may be, however, that some sellers are already exposed to sufficient competition by virtue of interconnections with various buyers as to permit the conclusion that they have no significant monopoly power in the bulk power market concerned. Further, it is almost certainly true that implementation by states of an "all source" bidding scheme would enhance this possibility. Hence, I think the urgings of the investor-owned utilities that our existing pricing of coordination markets could be liberalized further, even to the point of establishing marketplace pricing in certain areas, is a serious possibility that is well worth exploring. It will permit the Commission to move away from the current, rather awkward hybrid between cost-based and market-oriented pricing concepts that currently characterizes coordination pricing, and I suspect, still imposes some constraints on efficient, freely negotiated arrangements. More market-based coordination pricing should, in turn, enhance the efficiency of bulk power markets.

A further inquiry that seems to fit into a comprehensive review of our regulation of the bulk power markets is how we should regulate entities such as Citizens Energy serving middleman or brokering functions between operating entities fulfilling the traditional generation, transmission and distribution companies. My concern over the Commission's decisions in the cases waiving certain regulation requirements for Citizens Energy went mainly to the sense that we had not fully thought through this issue. I believe we should do so soon in the broader, generic context of bulk power regulation.

2. Reform of transmission pricing. One of the most urgent issues facing the Commission is that of rethinking its transmission pricing model so as to improve the efficiency of bulk power markets. There are currently three principal problems facing regulators of the transmission system, solutions for which are absolutely critical to more efficient electricity supply and to more efficient bulk power markets:

1. Determining how to assure that efficient amounts of transmission capacity are built on a timely basis.
2. Deciding who should build, operate and have access to existing and planned transmission capacity, and on what terms.
3. Learning how to price transmission service or services for those who are given access to them.

A part of the problem with developing an effective strategy towards a more efficient transmission system is that regulatory authority over these issues is both fragmented and incomplete. State agencies have virtually plenary authority over the "need" certification and siting of transmission facilities in their jurisdictions, and the FERC has virtually plenary authority over transmission pricing. But, as state commissioners have pointed out, however well they might certify and site transmission facilities, they will not be built to meet all needs if FERC's pricing of transmission does not provide appropriate incentives. Similarly, while the FERC can increase the economic incentives to build transmission capacity through appropriate pricing, it has virtually no control over state siting and certification procedures where noneconomic factors, such as risks to health and environment, can play a major role.

The report of the National Governors' Association (NGA) Transmission Task Force in February 1987 outlined very well some of the major problems facing the nation if it is to ensure development of adequate transmission capacity.[19] In mid-1987, the NGA approved some useful recommendations for improving state certification and siting procedures, although these recommendations were modest in the most troublesome area -- the development of large interstate lines for transmission facilities designed to serve the bulk power markets. This may be one area in which ongoing Congressional attention, designed to encourage states to move ahead with these improvements and to face up to the tough interstate issues, would be productive and important to this country's long term electricity future.

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[19] Moving Power: Flexibility for the Future. Report of the National Governors' Association Committee on Energy and Environment Task Force on Electricity Transmission (undated).

Improved transmission pricing will also, of course, provide more appropriate incentives to wheel power on a voluntary basis, although it is doubtful that this would lead to sufficient levels of transmission access to maximize the efficiencies of the bulk power markets. Still, an improvement of FERC's pricing of transmission is an important and urgent step in the required direction. Certainly, without appropriately priced transmission service, it would be difficult to advocate a new regulatory regime that broadly mandated such service since one could not be sure that he would be enhancing efficiency.

In making a strong case for moving ahead with reform of transmission pricing, I am aware that this is one of the most difficult pricing tasks facing the Commission. Because of the technical nature of alternating current transmission grids, accurate pricing of transmission service seems to be an extremely difficult task. There are major costs, such as unintended power flows on other systems, that are barely accounted for in present pricing structures. Fortunately, not only has there been considerable internal staff analysis of transmission pricing, and some useful comments received in the Notice of Inquiry, but there are some major studies on transmission pricing and the technical impacts of wheeling either recently published or soon to be published by major research organizations.[20] Hence, while I think the task of transmission pricing is formidable, the FERC today has the means to evaluate just how formidable it really is.

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[20] See, for example, Some Economic Principles for Pricing Wheeled Power, by Kelly, Henderson and Nagler, National Regulatory Research Institute (NRRI) (August 1987); Non-Technical Impediments to Power Transfers, NRRI (September 1987); Technical Limitations to Transmission System Operation, Power Technologies Inc. and Electric Power Research Institute (EPRI) (publication imminent).

3. Rethinking of transmission access policies. Transmission access, of course, is the issue that raises the highest level of emotion for many actors in the industry. It was certainly the most actively debated issues in the 1985 Notice of Inquiry and one upon which various interests were most deeply divided. I think the level of rational debate will be greatly heightened, and the level of emotion reduced, if a clear distinction is drawn at the outset. The distinction is between what is often described as "supplier access," i.e., some right for suppliers of electricity of access on reasonable terms to utility transmission grids to reach wholesale markets other than that provided by their "native" utility; and "customer access," i.e., the ability of retail and wholesale requirements customers to gain transmission access to reach suppliers other than their "native" utility (or for such other suppliers to reach them). (See Chart 1). Because customer access involves the potential for native utility by-pass, it goes to the heart of the state regulated system. It raises serious concerns as to its potential effect on both the financial viability of certificated utilities and the protection of their captive customers.

In my view, there are three major questions concerning transmission access facing the FERC at the moment:

(i) Whether a greater degree of supplier transmission access is necessary to make competition in the wholesale bulk power markets adequately efficient. My answer to this question is a cautious yes -- cautious only because a general, liberalized supplier access regime at the wholesale level must be accompanied by removal of potential distortions in FERC's pricing of both transmission and wholesale requirements services. I believe our pricing of coordination services is already on a sufficiently rational path to permit greater supplier access. Moreover, greater supplier access would in turn strengthen the case for liberalizing our coordination pricing policies in the direction of market-based rates. Indeed, the nexus between these two policies was perhaps the principal focus of debate in the 1985 electricity Notice of Inquiry.[21]

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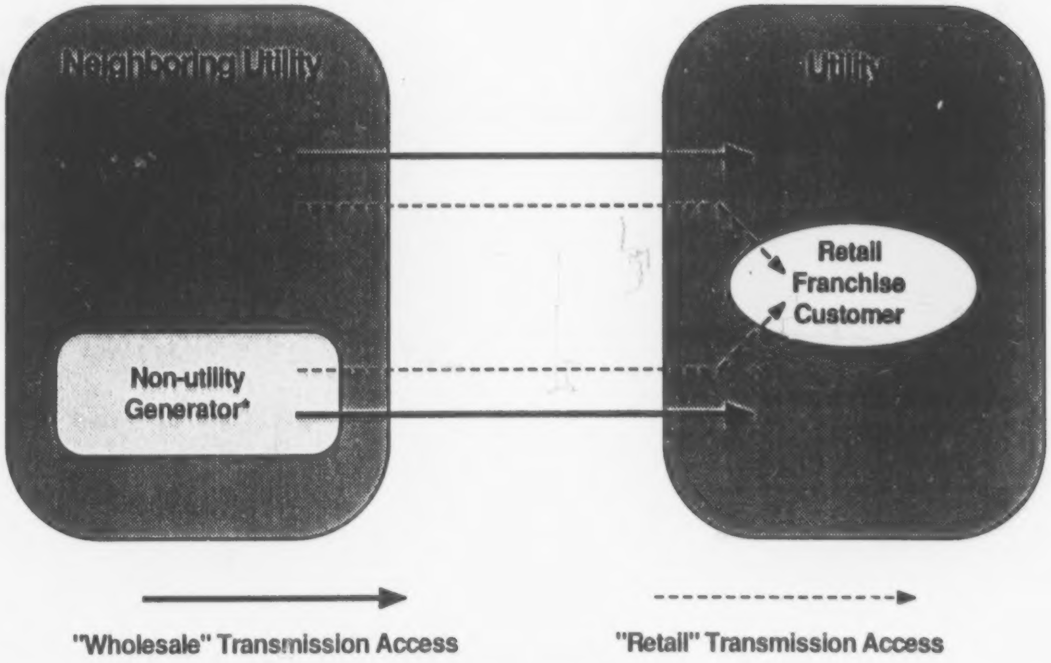
[21] Most IOU's, the transmission "haves," argued in the NOI process that the FERC should at least codify the quite liberalized evolution of its pricing of coordination services and probably liberalize them further. They did not find a

(Footnote Continued)

CHART 1

The Difference Between "Wholesale" and "Retail" Transmission Access


Neighboring Utility
Non-utility Generator*
Utility
Retail Franchise Customer
"Wholesale" Transmission Access
"Retail" Transmission Access

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

In order to have workably competitive generating markets, i.e., workably competitive bulk power wholesale markets that will approximate desired levels of economic efficiency, all gencos must have reasonable transmission access to a multiplicity of potential buyers. Assuming no transmission access at the retail level, failure to provide supplier access at the wholesale level will lead to gencos facing monopsony power[22] that will increase genco risks and therefore genco costs and the cost of the overall power supply passed on to consumers. Such a failure would also limit regional specialization and encourage plant siting at multiple utilities' boundaries in order to escape buyers' monopsony power rather than at the most efficient sites. By failing to address transmission access, The FERC in effect sanctifies the monopsony power of balkanized utilities. This is exactly the power, it should be recalled, that Congress identified as the principal cause of the inefficiency at which section 210 of PURPA was directed.

I should stress, however, that, even with respect to supplier access, there are fundamental clarifications needed. For instance, is the "right" to transmission access to be limited to a utility's surplus transmission capacity; or does it impose an obligation to build transmission facilities to meet all demands? Would the first "right" really provide meaningful transmission access? Further, would some notion of a utility obligation to build transmission facilities to meet all demands of a bulk power market be meaningful in the absence of an effective regime for certification and siting of transmission facilities on a timely basis? In short, the serious problems in the different areas of regulation of transmission are closely interrelated.

That is one reason, aside from technical complexity, why supplier transmission access is not an easy issue to address. However, I believe it can and should be addressed soon. I define "soon" on this point as when the FERC has created, or is in the process of creating appropriate pricing systems for

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(Footnote Continued)
need to mandate transmission access. In contrast, most interests seeking greater transmission access, the transmission "have-nots," asserted that the FERC should not contemplate liberalized or market-based pricing without moving to expand transmission access.

[22] The market power exercised by a single buyer in a market with multiple sellers.

coordination transactions and transmission services. At that time, the agency should be in a position to better assess what sort of mandatory supplier access regime, if any, is necessary and whether it could be achieved under existing statutory authority or whether the help of the Congress will be needed.

(ii) The second major access question is: to what degree is retail customer access a necessary ingredient of any FERC effort to improve the efficiency of the wholesale markets?[23] Several critics of Chairman Hesse's current proposal have suggested that it will lead us down some slippery slope toward retail access and massive by-pass at the retail level that would wreak havoc with utilities' existing systems. I do not agree. I do not believe the question of retail access is an ingredient or a relevant issue at this time in what should be the FERC's current focus -- reform of its regulation of the wholesale bulk power markets. That does not mean that some level of retail access may not be desirable at some future time for the achievement of competitive electricity markets for some subset of retail customers. However, I see nothing in FERC's current initiatives or from the 1985 Notice of Inquiry that suggests that the FERC will soon be dealing with or trying to create such competitive electricity retail markets. I think it is generally accepted that the critical distribution function will not in the foreseeable future be competitive, except where buyers themselves are able to achieve some level of by-pass. Moreover, insofar as this function is regulated, it is done so primarily by state commissions; and I see very little inclination on the part of state commissions at this time to expose their utilities to greater levels of retail competition through by-pass. The reasons are obvious and known to us all -- the issue of permitting or encouraging retail wheeling cannot be separated from a fundamental reevaluation of utilities' obligations to serve or from consideration of measures to protect the utilities' current rate base investments and their captive customers.

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[23] I have omitted for the purposes of this discussion, any consideration of wheeling in the wholesale requirements area. Such wheeling raises complex problems, which time does not permit us to cover here, but problems which I believe can be resolved. In fact, one objective deserving of debate is substituting wheeling rights for cost-based regulation, i.e., eliminating the category "requirements customer."

Currently, however, we are contemplating wholesale reform. However, the FERC faces a prevailing reality of strong monopsony power at the disco level. The real issue is what reform of FERC wholesale regulation is necessary in order to achieve a more competitive and efficient genco sector, accepting the reality of a disco sector that will continue to be somewhat monopsonistic and probably heavy regulated in most of its activities for some time. Of course, FERC has to be cognizant of the pressures for by-pass and the increased ability Section 210 of PURPA has given some industrial customers to achieve the through self-generation. However, that does not get the FERC into advocating or encouraging retail wheeling. Rather, if its reforms at the wholesale level are effective in producing more efficient genco markets, this should serve to reduce the pressure for by-pass. The incentives to by-pass, recall, is in considerable part a product of the failure of the old regulatory system to price efficiently and to provide adequate incentives for efficient generating capacity under modern economic conditions.

(iii) The third major issue is conditional access. One of the more hotly debated and I think more serious issues concerning Chairman Hesse's proposed PURPA reform package is whether some level of supplier access is a necessary ingredient of that package.

One of the arguments we have heard often is that some level of supplier access, insuring a multiplicity of wholesale buyers for suppliers, is necessary to the functioning of a "all-source" competitive bidding process. I repeat my earlier conclusion that some level of supplier access is probably necessary for "workably competitive markets" in most, though perhaps not all, situations[24] in the wholesale bulk power markets. However, I think the competitive bidding debate has led to some confusion. The competitive bidding scheme is merely a first step towards a workably competitive market. To me, there is an important distinction between a workably competitive wholesale market and a "competitive" bidding scheme administered by existing utilities with great monopsonistic powers. The word "competitive" is used in this all-source bidding context in a very limited sense -- that of allowing new suppliers into a limited market.[25]

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[24] As FERC noted in the Western Systems Power Pools order, control of "bottleneck" transmission facilities may not automatically translate into market power in the antitrust sense.

The real question is whether these competitive bidding arrangements can significantly further efficiency. This requires us to ask whether they can provide an improvement over the status quo, or whether they can be gamed by one or another player in the electricity supply market so that efficiency is lowered.

My tentative conclusion is that while supplier access may not, strictly speaking, be a necessary ingredient of a constructive bidding system, its potential for enhancing efficiency is so great as to justify the FERC taking a hard look at the degree to which it might be introduced at this point, i.e., as part of an "all-source bidding" option. Below, in discussing the PURPA reform package under current consideration, I will propose that two limited, transaction-specific forms of supplier access should be included as options in this package for states to exercise. They should provide some potential for achieving greater levels of efficiency, but without raising most of the concerns that transmission access typically does amongst utilities.

4. Reform of FERC regulation of requirements service. Requirements service regulation is characterized by a cost-plus approach, in most respects quite similar to retail regulation at the state level, though with some significant differences such as FERC's court-mandated requirement to consider "price squeeze" issues. This area of FERC regulation was the primary subject of Phase II of the 1985-86 Notice of Inquiry, which focused upon some of the fundamental pricing issues, such as the efficacy of marginal cost pricing, the efficacy of current methods of capital cost recovery and various aspects of what may broadly be called incentive rate regulation and existing barriers to such regulation. These are important issues in which the FERC could provide leadership in the reform of the traditional regulatory pricing system, I do think they should be expeditiously addressed.

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[25] Indeed, the PURPA reform package refines and builds upon the fundamental PURPA model, which recognizes the pervasive reality of state-sanctioned monopsony power in the utilities and seeks to reduce somewhat the inefficiencies that monopsony power creates not by attacking that regulatory structure head-on, but rather by giving QFs some regulatory guarantees to counter that power.

However, they should not distract the FERC from its broader focus on creating efficient bulk power markets.

To my mind, the truly challenging issue with respect to wholesale requirements service is how, as wholesale requirements customers develop their own generation or seek to acquire supply in more competitive bulk power markets, they may be effectively integrated into those markets without causing inefficiencies on their native utility systems. The portion of wholesale service for these customers that typically requires cost-plus regulation seems to be declining. I believe that a solution compatible with the needs of all the major actors in this market that would effectively phase out our cost-plus regulation of this area over time is achievable.[26] That to me would be a better focus for our efforts than the inordinate amount of time the Commission, and contesting parties, spend on wholesale requirements rate increases, often quite small in dollar terms, and on related price squeeze issues. The considerable amount of money and time these same parties appear to expend on bitterly contested antitrust suits might also be eliminated.

VI. The FERC's Initiative to Explore PURPA Reform

In Part V, I elaborated on why I think it is necessary to consider reform of all the major parts of FERC's regulation of electricity. I now want to focus upon those elements of reform currently under consideration.

A. Principal Merits of "All Source" Bidding

As I have said before, the basic concepts set forth in Chairman Hesse's June 10 speech are sound. My observations concern how I see those concepts fitting into the changes in the industry I have discussed, into what I see as a growing crisis in its regulation and, in particular, into the evolution of the industry under section 210 of PURPA. This package of concepts, which center on the notion of "all-source" competitive bidding as a means of bringing on new capacity and determining utility "avoided costs," and on a liberalization of the FERC's Federal Power Act regulation for a defined class of IPPs, seems to me to have three principal merits.

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[26] The Commission received some helpful analysis of this area in the 1985 Notice of Inquiry. See, e.g., the comments of National Economic Research Associates, Inc., and of Pacific Gas and Electric Company.

1. It will give state PUCs a rational basis for reconciling the potentially conflicting mandates of their own supply planning prerogatives and of section 210 of PURPA.

2. It will give non-QF independent power producers (IPPs) a clearer avenue to electricity markets in those states or utility systems which adopt "all source" bidding. One practical concern with the existing PURPA section 210 scheme is whether it might in some respect start to act as a barrier to non-QF IPPs, who cannot call upon the utility's PURPA section 210 obligation to purchase their power. PUCs may create a more efficient electricity supply in the long term if the appropriate bidding system is set up and an appropriate contracting regime is developed to accompany it.

Some have asserted that the IPPs proposal in the PURPA reform package is premature and not strictly necessary at this point. I disagree. First, I think it can make an important contribution to immediate rationalization and increased efficiency of the section 210 scheme. Moreover, consideration by the FERC of the role IPPs can play both in the PURPA scheme and in the bulk power markets generally is a matter of more serious and urgent concern than meets the eye. The fact that there are not in existence today a significant number of IPPs does not mean there is no urgency to the issue; indeed, I think it argues more strongly for the reverse. We have witnessed over the last three or four years an explosion of development in a narrow range of technologies under PURPA once an avenue to the market was opened for those technologies. It is very possible that a clear avenue or avenues for independent power producers will produce a similar development of hithertofore unutilized supply options that could produce greater efficiencies than does the present system. Of course, this cannot be guaranteed but the nation will never find out what the potential is unless it moves to reduce or eliminate the serious regulatory and institutional barriers to the IPPs potential. Every indication I have seen is that the potential and interest is there; indeed, a few incipient IPPs are perservering in winding their way through the regulation maze they face, notwithstanding some currently formidable barriers to their development.

That the FERC's regulatory policy towards IPPs is in need of investigation is almost axiomatic because in reality the FERC does not have a defined policy. It was clear from our approval in early 1987 of the concept of the Ocean State project, which I supported, that we had not developed a clear rationale for the pricing of power from stand-alone independent generators; nor have we approached some of the difficult issues of affiliate relations with purchasing utilities. It is clear, too, that the FERC is soon likely to be faced with other proposals that will have an IPPs component in them. Even though the FERC will probably continue to consider most of these on a case-by-case basis in the context of their specific facts, the agency needs to develop generic criteria to guide it. I believe that is best done in the context of a generic proceeding such as a rulemaking.

3. A third major advantage of the reform package, closely related to the second, is that it would seem to provide a basis for more closely reconciling what are currently two very different regulatory avenues towards what should be a national bulk power market: (1) PURPA, and (2) our traditional regulation of coordination transactions under sections 205 and 206 of the Federal Power Act. Moreover, it would clarify and rationalize to a greater degree than before the role of IPPs in each of these avenues.

I think there is yet another basic advantage to the package. It would essentially build upon developments that are already occurring in state implementation of section 210 of PURPA, developments which seem to be pushing the parameters of the regulatory scheme that the FERC established in 1980. While some states are probing or have started to implement bidding schemes, others are clearly holding back pending clarification of the status of such schemes under section 210. To me, both developments bespeak the necessity of the FERC addressing the issue of when and under what conditions bidding mechanisms are a proper implementation of its section 210 rules by state commissions.

B. Implementation Issues in Competitive Bidding Proposals

There are, of course, a myriad of issues that Chairman Hesse's June speech raised, some of which will have to be addressed by the FERC in the current reform package , and some of which are better left to state commissions in their implementation. Even though I think these proposed reforms, if adopted, would be relatively modest, particularly given their voluntary nature, they nevertheless raise in the greater scheme of things some complex issues as to the design and implementation of bidding schemes and of related contracting regimes. However, while important and appropriate for debate, these are essentially questions of the mechanics or implementation of the scheme. Hence, they should be kept in perspective, especially as many of them will probably have to be made not by the FERC but by state commissions in the context of the particular circumstances of each state, e.g., the degree to which its public utility commission wishes to play an up-front role in administering and monitoring a bidding scheme. It should be underscored that, under the package, the adoption of a bidding scheme is voluntary and that states would be able to act on their own timetable. As the FERC is about to embark upon a detailed examination of the proposed reform package, this is probably not an appropriate time to dwell upon my own speculation as to possible implementation issues. I have not yet had the benefit of dialogue with my colleagues and with FERC staff, and the opportunity to reflect upon that dialogue. It is perhaps useful, however, to briefly identify a couple of general issues that I suspect will be important to much of the debate that will doubtless ensue over implementation.

1. The Role of and Burdens on State PUCs. One concern in designing the parameters of a federally conceived bidding scheme has to be whether, however conceptually appealing, it is in fact implementable in many states, e.g., those that do not have adequate resources to effectively monitor bidding schemes. Another conflicting concern is that FERC should not impose conditions so strict that they discourage states already contemplating bidding. A particular focus of mine as to the former concern is whether we can expect states to effectively design bidding systems in which the utility can be both bid evaluator and a potential builder of new generation capacity without unduly favoring its own generation.

However, in view of our probably limited authority to mandate a state's decisions as to the future role of its regulated utilities, I believe our best approach, to both these concerns, is to leave as much flexibility to state commissions on issues such as this as we can, while still ensuring that this flexibility will not lead to results inconsistent with our statutory mandates or with the efficiency goals the package is designed to achieve. Flexibility should enable states to tailor bidding schemes to their own particular circumstances, a philosophy that the FERC has generally applied in state implementation of section 210 of PURPA to date. However, there are certain minimum requirements of an effective bidding scheme that this Commission will have to impose to guard against abuses and to ensure that the potential efficiency gains of a bidding scheme are not outweighed by a series of built-in inefficiencies. This determination, of exactly what we have to prescribe, will present some difficult questions for the Commission and will require a delicate balancing of these competing concerns as to each major question and the exercise of considerable good judgment as to what reasonably can and cannot be expected of state commissions and governments.

2. The Future Role in Generation of Utilities Administering Bidding Schemes to Acquire New Capacity. The IPPs Technical Conference, and the good staff paper issued for consideration at that conference, focused considerable attention upon the question of how far utilities should be permitted to participate as potential suppliers in bidding scheme they might institute and largely administer, or how they might otherwise act as suppliers to meet their own capacity needs notwithstanding, or in competition with, the results of the bidding scheme. My initial bias is towards a system that permits utilities to continue to play this traditional role as builders of new generation where that will contribute to a more efficient generation market. This assurance seems to require two guiding principles:

a) That, if utilities are to build in direct or indirect competition with other bidders, they should be subject to the same price discipline (assuming reasonable comparative account is taken of all "non-cost" factors) that the bidding scheme imposes, certainly in situations where more legitimate capacity offers are received than the system needs.[27]

b) That some reasonable and effective mechanisms for assuring against "self-dealing" concerns[28] where affiliate relations are involved, are put in place. I suspect there are several viable options in this regard and that some flexibility should be left to state commissions, who should have every incentive to prevent self-dealing, to select which are appropriate. While I have concerns about the ability of state commissions to police self-dealing, that potential problem is already present to some degree in view of the ability of utilities to own 50 percent interests in QFs under section 210 of PURPA. I have seen no significant evidence of the sorts of self-dealing and favoritism towards utility-owned QFs that might raise serious concerns. Some companies have been creative in suggesting ways in which utilities may continue to play a major role in future generation without raising the self-dealing or favoritism problems. The existence of numerous options for states on this issue should give some assurance that the FERC is not passing down to state commissions unmanageable decisions as to what role they wish their utilities to play in future power supply.

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[27] Presumably, if the market does not produce the capacity needed, there would be less objection to the utility building on the traditional estimated cost-subject-to-change basis.

[28] Although many of the concerns in this area raised in the staff paper may seem quite fanciful, if the FERC is to permit affiliates to act as both seller in competition with other sellers and buyer, full consideration of these concerns is probably necessary to fulfill the FERC's statutory mandates to protect consumers and to protect competition, and to pass legal muster in this regard.

3. Capacity "Set-Asides." A third difficult issue that emerged from the dialogue between the FERC staff and industry interests is the degree to which blocks of capacity might be set aside for various generation sources or suppliers. A distinction is useful. To me, there is a difference between: (1) a set-aside that carves out a certain portion of the utility's future needs for a QF-only or for an "all source" bidding system and permits the utility to supply the remainder under the traditional cost-plus system, and (2) a set-aside of a certain block of capacity for special preference for certain technologies, such as wind or solar technologies. The former would insulate potentially major parts of the utility's future supply from the efficiencies of the bidding system and, worse, would have the potential of creating a "QF or QF/IPP ghetto," as the term has been coined. I do not see how the FERC could permit such set-asides without undermining section 210 of PURPA itself. The latter set-aside might, in the name of research and development, be viewed as less objectionable. However, I am generally opposed to any form of set-aside, absent strong justification, and I am certainly opposed to excluding certain sources, such as Canadian power, if "all source" bidding is adopted. Denying potentially efficient suppliers access to electricity markets obviously cannot be a part of a program designed to improve economic efficiency.

4. System Reliability. A number of critics of the development of independent generation have raised concerns about its effect on reliability of supply. I believe there are serious concerns about reliability that need to be addressed in any proposal that removes direct control of some generation sources (though not of transmission or distribution) from the utility, especially as, on AC grids, control of generation plays an important role in controlling the transmission system. However, the difficulty in analyzing the reliability issues sensibly is compounded by a tendency to treat "reliability": as some monolithic, supra-economic diety,

conceived in utility boardrooms and never to be challenged by anyone else. A few distinctions that occur to me may help to demystify the concept and advance the debate:

a) Reliability in one sense refers to the minimum level of control necessary for utility or power pool dispatcher to effectively operate the system. This is clearly a critical component of "reliability" that must be preserved. Pool dispatchers currently deal effectively with numerous and diverse utility sources and, already quite a lot of QF power; there seems no reason why they cannot deal with more. Of course, as independent generation becomes a more significant component on any system, some or all of it may have to become more dispatchable or fully dispatchable. That need, it seems to me, could be handled by presenting needed levels of capacity in bid specifications or by assigning high values to dispatchable capacity.

b) "Reliability" in another sense refers to the availability of electricity to consumers over time. No system can be absolutely reliable in the sense of guaranteeing service completely; that is why institutions such as hospitals and telephone companies that need extremely high levels of reliabiity have their own backup systems. U.S. utilities have traditionally established very high levels of availability for most or all of their customers, which consumers have enjoyed and paid dearly for. Consumers in some European countries tolerate lower levels of availability, permitting utilities to lower reserve margins and reduce costs. U.S. consumers have been given few choices in this regard; most are probably unaware that there is some level of essentially economic choice in this regard. Some modest advances, such as interruptible rates for some industrial customers, have been made. I would prefer a system that, where practicable, passes directly to consumers the economic choices as to the level of availability.

c) Another level of "reliability" that is more difficult to analyse goes to the viability of the generating firm itself, or its willingness to continue to produce if economic conditions render its generating unit uneconomic. As to the first concern, effective screening by utilities (and, where applicable, PUCs) of the financial credentials of potential bidders would seem an appropriate and potentially effective safeguard (reinforced, in many project financed ventures, by rigorous screening from financial backers). As to the second, effective contractual provisions such as penalties for nonperformance and the ability of the utility to take over plants, should avert most of this type of reliability dangers; and the expense of temporarily running such uneconomic plants until alternative capacity is found will probably be no greater, indeed perhaps far less, than that of running less than optimally economic plants built under the traditional system.

d) Reliability aometime is a code word suggesting that independent generators may have lower capacity availability over time than utility generators. There is no evidence this is likely, especially as many "independent" plants will be built (and perhaps operated) by the very same contractors that build utility plants. Colloquial evidence from the PURPA experience suggests that most QFs have been more reliable in this regard. Moreover, if the contracts between utilities and QF/IPPs are properly designed, the owners of the QF/IPPs are the losers, not the utility or its customers.

C. Barriers to Independent Generation.

While the reform package under consideration will remove some significant barriers to independent generation, even if promulgated by rule, this package would leave at least two major barriers to IPPs development, the first also of concern to QFs:

1. "Supplier" Transmission Access.

A major barrier to the development of optimal levels of QF and IPPs capacity is the inability of these suppliers to reach other markets than that of their "native" utility. In part, this may be a result of insufficient transmission capacity, a potential major problem for the future of efficient bulk power markets of whatever form, at present very much in the hands of state certification and siting processes. In part, the problem is one of supplier transmission access, as I have defined it above.

A number of groups and, interestingly, some major utilities have urged that an all-source bidding scheme is only meaningful if coupled with transmission access, and that the FERC really should not move forward with the bidding proposal without doing something about supplier access. On the other hand, we have been urged by major interests, including most state commissions, to examine supplier access in the broader context of our overall reform of bulk power regulation. Moreover, as I elaborated above, there are a number of major bulk power and transmission pricing reforms that should accompany a broader supplier access regime in the name of enhancing efficiency. For these reasons, I believe we can and should move forward with the current proposal without at this point considering general supplier access on a necessary ingredient. In so doing, we should recognize that the markets that will be created by bidding systems are likely to be more balkanized and less efficient than those that would develop if broader supplier access, accompanied by an adequate transmission system, were available.

However, I believe there are two discrete improvements in transmission access that could, and should, be achieved under the current reform package. These proposals could each, in different circumstances, significantly reduce the inefficiencies caused by lack of supplier access, help to protect the rule promulgated from probable legal challenges based on the FERC's failure to address the issue, and could provide useful experience, in a carefully controlled setting, for dealing with more general concepts of supplier access. While each proposal could, I believe quite legally, be mandated by FERC, at this point each should be left to the option of state commissions permitting bidding systems. I see no legal requirement that we impose them. I will urge my colleagues that each of these proposals be included as options in any proposed rulemaking, so that the Commission may enjoy a full airing of public comment as to their advisability.[29]

1. "Wheeling In" to Bid Market. This is the proposal I first made in my testimony before the House Subcommittee on September 10. I believe that the FERC should allow states, in implementing "all-source" bidding, to exercise an option, for each utility they regulate, to condition participation by potential suppliers in each utility bid upon the aspiring supplier's not using its monopoly power over transmission facilities to deny access to the bid market to other aspiring suppliers.

For instance, if a utility wished to participate in a bid, it would have to provide transmission access to another aspiring bidder if that was necessary for the other bidder to participate in the auction. Thus, the utility with the transmission bottleneck capability would have to provide access for the limited purpose of allowing another participant supplying power to that same buyer, if successful in that same bidding process. (See Chart 2) The proposal is then utility-specific, transaction-specific (or "bid-specific"), and optional to each utility at the behest of the state

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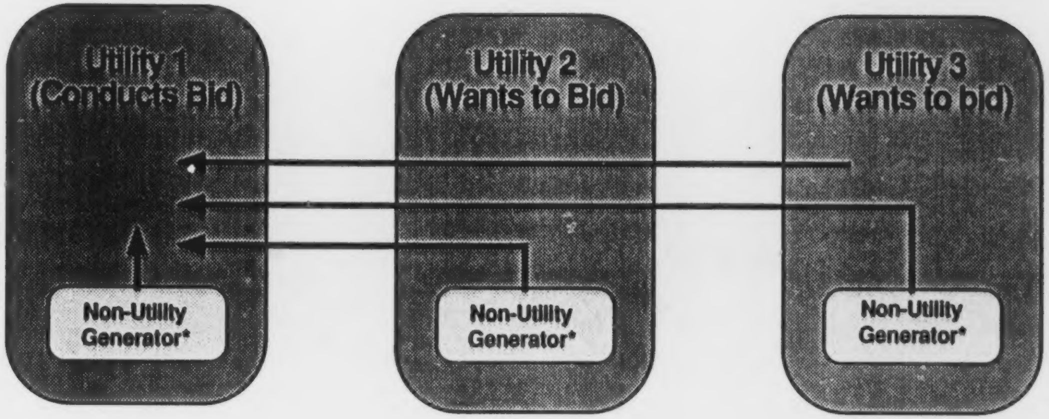
[29] This seems especially important in view of the limited airing the issue of transmission access has received in the public processes to date leading up to this reform package.

CHART 2

"Wheeling In" Conditioned on Utilities Wanting to Bid

Utility 2 Wants to Bid


Utility 1
(Conducts Bid)
Non-Utility Generator*
Utility 2
(Wants to Bid)
Non-Utility Generator*
Utility 3
(Wants to bid)
Non-Utility Generator*

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

commission. It would not require utilities to open up their systems to other suppliers for all transactions.

The degree to which exercise of this conditioned access option would expand the array of bidders would, of course, depend upon how much those with transmission capability wished to participate in each bidding process. (See Chart 3). Moreover, physical constraints on their transmission capability might limit their ability to provide access. The utility would not be required to wheel if that would adversely affect its system reliability or distort its ability to economically dispatch its own units. My proposal would, then, not open up the grid in all circumstances in which it should be opened to suppliers of electricity. However, it should serve to expand the range of potential suppliers to "bid" markets, especially those major "plumb" markets, such as California, New York, and New England, which have potential capacity needs in the near- or mid-term and which have generally high local generating costs. These are exactly the markets where an expanded array of suppliers could offer significant efficiencies and where the incentives to enter these markets for those owning bottleneck transmission facilities may be strongest. These incentives could also, for longer-term generation needs, help solve transmission capacity constraint problems. They might create some interesting potential for the more distant suppliers to contribute to investments in new transmission lines or upgraded facilities, if the proper planning and regulatory approaches are adopted at the state level.

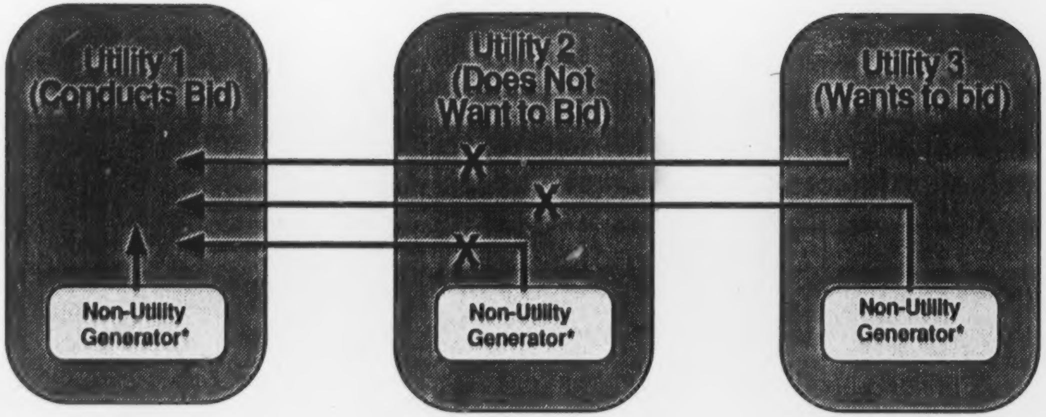
Emotionally charged as the issue of transmission access is, I would hope that my proposal will not prove to be unduly controversial, especially with the utilities themselves. They, with some legitimacy, tend to carefully scrutinize every proposal for its potential deleterious effects on their systems. I do not see how this proposal can pose any significant threat to utility systems, assuming it obligates them only to provide access to surplus transmission capacity currently available or readily planned. It will only expose them to potentially greater competition in an already competitive bidding process. It would not in any way affect their "core" retail or wholesale requirements markets.

2. "Wheeling Out" From Bid Market. This proposal would simply permit states also to impose a condition on any utility that wants a bidding process for new capacity to wheel to the border of its control system for any QF or IPPs within its control area that is not successful in that bidding process. (See Chart 4). The requirement to wheel would be subject to the same safeguards as to not impairing the utility's

CHART 3

"Wheeling In" Conditioned on Utilities Wanting to Bid

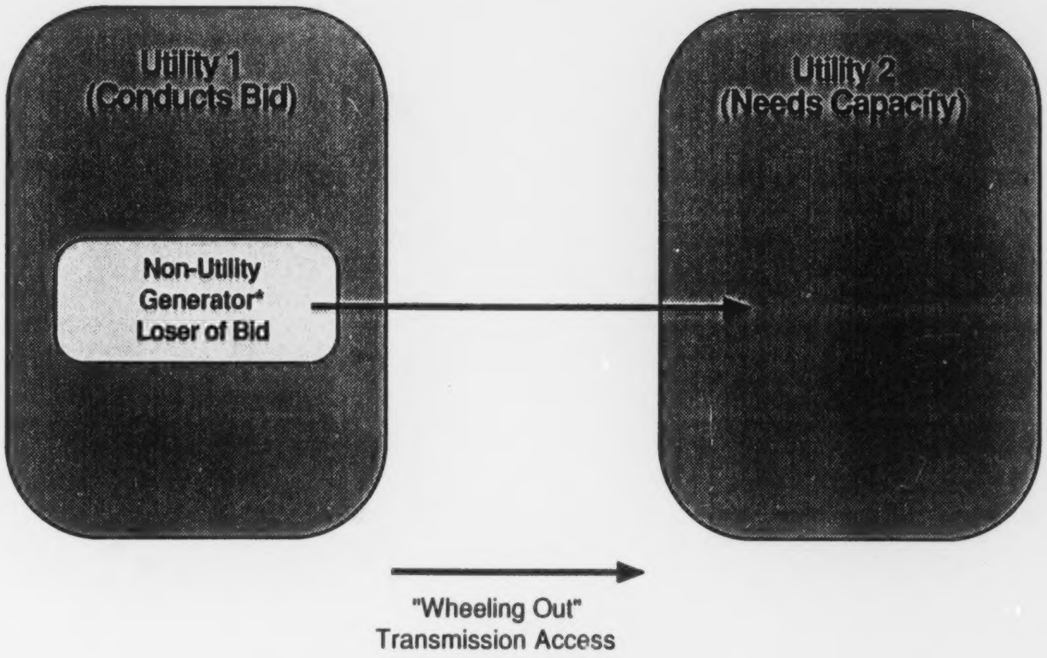
Utility 2 Does Not Want to Bid


Utility 1
(Conducts Bid)
Non-Utility
Generator*
Utility 2
(Does Not
Want to Bid)
X
X
X
Non-Utility
Generator*
Utility 3
(Wants to bid)
Non-Utility
Generator*

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

CHART 4

"Wheeling Out"


Utility 1
(Conducts Bid)
Non-Utility
Generator*
Loser of Bid
Utility 2
(Needs Capacity)
"Wheeling Out"
Transmission Access

* PURPA Qualifying facility (QF) or Independent Power Producer (IPP)

reliability or economy dispatch as the first proposal. Only "supplier" access would, of course, be permitted, i.e., wheeling to a neighboring integrated utility, not its retail or wholesale requirements customers.[30] The proposal would expand the potential markets for these IPPs and QFs and potentially enhance the overall efficiency of the bulk power system, e.g., by expanding options to locate at the most efficient sites. Again, I don't see a significant threat in the proposal to the utility conducting the bid. It would, however, expand the number of competitive alternative generators in its control area. The only possible effect on its "core" markets may be to encourage some higher level of self-generation through cogeneration units that would not be viable but for access to the neighboring market. In many situations, that potential would not be significant; however, the prospect that it might be underscores the need to make it optional for state commissions, who have every incentive to protect utility "core" markets. However, as there may te other less obvious consequences, I advance the proposal with greater caution and belive it all the more necessary to receive comments on it in the generic public content of a proposal rule.

Both proposals, then, would permit states to implement discrete, conditioned supplier access regimes that are carefully tailored to the needs of a PURPA bidding process and seemingly readily controllable to avoid any unforeseen deleterious consequences. Both could make that process yield more efficient results and provide useful experience before the FERC, or perhaps other bodies such as the Congress, are required to address some of the tougher, more global transmission issues associated with a more general reform of the FERC's regulation of the bulk power markets.

While I make both proposals for public consideration on grounds of sound regulatory policy, I believe both are within the scope of the FERC's current authority and would pass legal muster as long as the FERC made a well-reasoned case that the overall PURPA reform package is justified. Indeed, total failure to deal with transmission access in the course of considering this proposal, especially in light of several commenters' concerns in this regard, may be received with less judicial sympathy.

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[30] I recognize there may be complicated, but rare, situations where wheeling would be possible to the grids of wholesale partial or full requirements customers. A detailed rule could deal with this eventuality.

2. The Public Utility Holding Company Act (PUHCA)

It is becoming increasingly clear that PUHCA may present a major barrier to IPP development in at least two major respects:

a) A concern by non-holding company owners of IPPs that their interest in an IPPs (which may be utilities or non-utilities) facility may subject them to SEC regulation as a "holding company" under PUHCA. As that regulatory scheme is viewed as very complex and burdensome, that prospect presents a major deterrent to their participation.

b) Concerns of utility holding companies that IPP ownership may run afoul the PUCHA mandates on the SEC to limit each holding company to a "single integrated public utility system."

PUHCA is a complex subject which we do not have time to explore today, especially as its administration is outside this Commission's jurisdiction. While I believe this Commission should make its views on this matter known to the SEC in the hope of encouraging a liberalization of its standards on these matters, my fear is that the SEC will find it has limited latitude under PUHCA in this regard. Hence, I suspect this is an area that may soon need Congressional attention. As this is not the focus of this hearing, I will not elaborate today my views on how this matter might be approached. However, I do feel that any reform effort should, if possible, seek to reduce or eliminate the PUHCA risks for all potential owners of IPPs, e.g., for holding companies and utilities as well as non-utility owners.

D. Summary.

My analysis of the need for incremental reforms can be summarized in four generalizations:

1. A strong case exists for the FERC moving incrementally with reform of its regulation of electricity with a view towards encouraging a more competitive generating sector. Accompanying this movement should be an emphasis on changing the pricing model for services that remain regulated.

2. There is a recognized need for incremental reform of the FERC's regulation of bulk power markets.

3. The package of PURPA reforms, and the associated review of FERC regulation of independent power producers under the Federal Power Act, currently under consideration at the FERC, is an appropriate step and one that I support, subject to two principal cautions:

- o that the package would forego the prospect of significantly greater efficiency gains, and may be more challenged legally, if it excludes the two discrete supplier transmission access proposals I have made herein as options for state commissions.
- o That the FERC should not pass down to state commissions difficult implementation decisions, at least without giving those commissions the widest possible range of options to deal with them and the benefit of ongoing FERC analysis of the consequences of alternative choices available.

4. Because I believe that reform of all the major components of our regulation, as well as PURPA, is so important, the Commission should proceed with a review of this regulation at its earliest opportunity. We should not let the PURPA reform initiative be viewed as piecemeal reform that was not coordinated with other elements of reform, especially the reform of regulation of bulk power markets. Accordingly, I expect to press for a coordinated review of the major components of our regulation of bulk power markets and requirements pricing as a "second phase," following immediately on formal promulgation of this proposed reform package.

VIII. Final Summary and Conclusion

The principal conclusion to be drawn from this testimony is that restructuring the electricity industry -- to rely less on regulation and more on market forces to determine prices and capacity in the generating sector -- has significant potential for improving both the economic efficiency of the generating sector and regulatory pricing policies in the transmission and distribution sectors. The principal justification for the conclusion is that, for technological, legal and macroeconomic reasons, economies of scale in generation that justified economic regulation of the generating sector in the early decades of the industry now seem to be attainable in optimal or near optimal amounts by market energized and market disciplined gencos. These reasons are not transient. Furthermore, the pricing traditions institutionalized in regulatory agencies fall short of inducing desired and attainable levels of economic efficiency. Moreover, these traditions have proven to be resistant to reform. Creating market disciplined gencos offers an opportunity to limit the scope of regulatory pricing and to create constructive pressures to reform regulated pricing in areas where it will still be applied.

I am convinced that significant restructuring of the electricity industry can improve the economic efficiency of the industry and that the FERC should take the lead in developing alternatives, creating the debates necessary to inform, and creating some consensus about both transition paths and possible end-states. In an industry as complex as the electricity industry, especially one that can exploit important economies of coordination only through a difficult to manage and difficult to optimally price transmission grid, it is especially important that the public debate be thorough. It is also important that all parties recognize that certain knowledge is needed that does not now exist.

Having said this, it is also desirable to remind ourselves of the paraphrased warning of Dr. Johnson: "If all consequences must be known before action is taken, nothing will be done."

END

The CHAIRMAN. Thank you, Mr. Stalon.

Senator Metzenbaum, you are recognized for comments.

Senator METZENBAUM. Thank you, Mr. Chairman. I want to compliment you on holding these hearings. I think they are very important.

I have an opening statement which I would ask unanimous consent be included in the record.

The CHAIRMAN. Without objection.

[The prepared statement of Senator Metzenbaum follows:]

STATEMENT BY SENATOR HOWARD M. METZENBAUM
COMMITTEE ON ENERGY AND NATURAL RESOURCES
FEBRUARY 1, 1988

I AM PLEASED THAT THE CHAIRMAN HAS CALLED THIS OVERSIGHT HEARING TO EXAMINE THE ELECTRICITY PROPOSALS BEING OFFERED BY CHAIRMAN HESSE. THESE PROPOSALS HAVE VERY SIGNIFICANT IMPLICATIONS FOR THE FUTURE OF THE ELECTRIC INDUSTRY IN OHIO AND IN THE NATION.

THE CURRENT REGULATORY STRUCTURE WHICH GOVERNS THE NATION'S ELECTRIC UTILITIES ALLOWS ROOM FOR IMPROVEMENT. I BELIEVE, HOWEVER, THAT WE MUST PROCEED WITH CAUTION TOWARD ANY CHANGE IN THAT SYSTEM. IF THESE PROPOSALS OFFER THE POTENTIAL OF REDUCING ELECTRICITY COSTS FOR RESIDENTIAL CONSUMERS AND INDUSTRY, THEY MERIT CAREFUL CONSIDERATION.

CONSUMERS IN MY STATE OF OHIO ARE CURRENTLY SUFFERING THE CONSEQUENCES OF TRADITIONAL UTILITY RATEMAKING. TWO RECENTLY COMPLETED NUCLEAR POWER PLANTS, THE PERRY PLANT NEAR CLEVELAND AND THE DAVIS-BESSE PLANT NEAR TOLEDO, WILL SOON CAUSE ELECTRIC BILLS IN NORTHERN OHIO TO SOAR TREMENDOUSLY.

FURTHERMORE, OUR EXPERIENCE SINCE PASSAGE OF PURPA IN 1978 HAS SHOWN THAT NON-UTILITY GENERATING FACILITIES CAN MEET SOME OF THE NATION'S POWER NEEDS WITH EFFICIENT AND ECONOMIC ELECTRICITY, WHILE ADVANCING THE GOALS OF ENERGY CONSERVATION.

NEVERTHELESS, THE PROPOSALS FOR FURTHER CHANGE ALSO POSE A NUMBER OF SERIOUS CONCERNS. WE MUST INSURE THAT RELIABILITY OF POWER IS NOT JEOPARDIZED IN OUR QUEST TO REDUCE PRICES. WE MUST ALSO CAREFULLY EXAMINE THE ROLE OF TRANSMISSION IN ANY COMPETITIVE SCHEME. TRANSMISSION ACCESS IS AN IMPORTANT COMPONENT IN ANY SYSTEM WHICH STRIVES FOR FAIR COMPETITION AMONG POWER PRODUCERS AND GENERAL ECONOMIC EFFICIENCY.

FINALLY, I BELIEVE THAT ELECTRICITY MUST BE ADDRESSED ON A NATIONAL BASIS. WHILE OHIO NOW HAS EXCESS ELECTRIC CAPACITY, NEW ENGLAND FACES A SHORTAGE. WE SHOULD BE LOOKING FOR SOLUTIONS WHICH WILL EQUALIZE THESE DISPARITIES.

I LOOK FORWARD TO LEARNING MORE ABOUT THE PROPOSALS PUT FORTH BY CHAIRMAN HESSE, AND WILL CAREFULLY EXAMINE THEM AS WE MOVE FORWARD.

Senator **Metzenbaum**. I also would like, Mr. Chairman, to ask whether the Chairman or such other members of the Commission as we might want to inquire of would be willing to respond to questions submitted to them in writing?

Ms. **Hesse**. Yes, absolutely.

Senator **Metzenbaum**. I thank you.

With that, Mr. Chairman, I am sorry that other commitments make it impossible for me to stay. I think it is a very, very important hearing. It is a shame that nobody seems to have any interest in it.

The **Chairman**. Thank you, Senator Metzenbaum.

I wanted to say "Senator Trabandt." [Laughter.]

I should say "former Senator Trabandt." [Laughter.]

Senator **Ford**. You started them out laughing. Boy, do not quit now.

STATEMENT OF HON. CHARLES A. TRABANDT, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION

Mr. **Trabandt**. If I break into "Hail to the Redskins", you will know that I need some help.

Mr. Chairman, thank you very much for the opportunity to be here this morning before this distinguished committee. I also would respectfully commend the Chairman and the committee for scheduling these hearings today, because action on these proposals is truly imminent at the Federal Energy Regulatory Commission.

Mr. Chairman, I would request that my full testimony be included in the record, including Attachment 2 filed this morning which outlines the all-source competitive bidding process, and which in my view is the heart of this proposal.

Mr. Chairman, last Monday, President Reagan in his State of the Union address called on all public officials to keep foremost in mind what is best for America.

Secretary of Energy Herrington has also called for electric policy reforms which make the system work better, not just make it work differently.

I am compelled to report to the Committee this morning that I am persuaded that the pending proposals badly fail to satisfy both those tests. The proposals would make the system work differently, but not better. In fact, in my judgment these proposals would make the system, in all likelihood, work worse.

Consequently, I would argue that these proposals, in fact, are decidedly *not* what is best for America.

Furthermore, I remain convinced that these proposals are clearly intended as a first step to restructure the electric power industry of the United States, exactly as Commissioner Stalon has argued in his testimony.

I would note in that regard that Chairman Hesse today has again endorsed Commissioner Stalon's testimony as justification for the pending proposals.

As Commissioner Stalon argues at great length, these proposals are based on the conclusion that so-called economic efficiency must be the primary objective of Federal electric power regulation. That conclusion, in my judgment, is contrary to the statutory objective of the Federal Power Act as a matter of law.

Furthermore, in my view, there should not be primacy of economic efficiency as a matter of policy over system reliability, states' rights, consumer protection, ratepayer equity and the general public interest.

If I could turn now to the abstract of my testimony, I will summarize my prepared remarks briefly for you.

First, I recommend that the FERC proceed promptly to address needed refinements in the current PURPA cogeneration program, including adopting new regulations on avoided costs that will provide improved guidance to states as to how to administratively determine such costs.

I strongly oppose at this time the pending recommendations by Chairman Hesse to adopt a market-oriented systems approach to PURPA implementation, that seeks to develop a market that allows all new generation to compete freely to meet future electric needs.

I would note in that regard that we have an honest disagreement, but I trust that we are disagreeing in an agreeable way.

My opposition is based on, among other things, the fear that all-source competitive bidding in these proposals will effectively kill the evolution of State competitive bidding initiatives and destroy the *de facto* experiments in competitive bidding of all types across the country.

Second, the failure to present to the Commission an objective and systemative analysis of the various State bidding schemes, let alone, in my judgment, any objective consideration of the many complex legal, technical and policy issues associated with all-source competitive bidding.

Third, my conclusion that the proposal will not provide American consumers with an assured and reliable electric supply at lowest reasonable prices which, in my judgment, is our primary responsibility, not economic efficiency.

On balance, I have concluded that this proposal in all likelihood will ultimately have anticonsumer impacts which should not be supported by the Commission.

I recommend promulgating general guidelines for State competitive processes for qualifying facility (QF) capacity power in the traditional cogeneration program under PURPA and completely deferring further action on all-source competitive bidding at this time.

Further, I believe FERC should proceed with a limited set of independent power producer experiments modeled on our recent *Orange and Rockland* case to gain additional evidence, information and experience rather than administratively deregulating independent power producers, as the pending proposals would do.

Also, I recommend that FERC promptly initiate a review of transmission regulation and related bulk power regulation, including the transmission issues that bear on the potential for creating workably competitive markets, before any decision is made on all-source competitive bidding.

In my judgment, to have not addressed the transmission regulation issue while proceeding with all-source competitive bidding would be legally flawed and, as a matter of policy, unacceptable.

Nevertheless, I am a realist, and I have learned while I sat here in this committee that one must count to a majority number. Perhaps some would say there are a majority of three votes now for these proposed rulemakings.

If that turns out to be the case, and the Commission proceeds to issue all three pending notices of proposed rulemaking despite my opposition, I believe the Commission should do several things.

First, it should ensure a responsible procedural approach for these NOPRs, including: one, an extended initial public comment period of perhaps 90 to 120 days. 120 days was recommended by NASUCA one of the State associations with interest in these matters;

An additional 30 to 45 days for reply briefs (which we have done in other significant rulemakings, such as the old gas rulemaking) in order to insure that we have the point/counterpoint analysis from interested parties before we act;

Regional conferences or hearings on the NOPR, which also have been requested by State authorities; and

Fourth, public meetings with appropriate State authorities, the National Governors Conference, the National Association of Regulatory Utility Commissioners, NASUCA and other State authorities who would have primary responsibility for implementing many of these proposals.

Second, I am convinced that we must also ensure that the National Environmental Policy Act is fully satisfied by full compliance with our own rules governing NOPRs and how we should implement NEPA for them.

That rule expressly requires in an informal rulemaking the inclusion of either a draft environmental impact statement or, in the alternative, an environmental assessment that shows that there is no significant impact on the environment, which must be included in the notice of proposed rulemaking.

At this point, we have had the benefit of no environmental analysis of any kind as part of our review of these rulemakings. I would seek the committee's support for both the procedural recommendations I have made to insure:

First, that there is full due process and complete participation from all interested parties, including State authorities, if we are truly to restructure the electric utility industry through this process; and

Second, that there is thorough consideration of potential environmental consequences and impacts before, in fact, we have acted to adopt these proposals.

Additionally, I believe that the new concepts also raise significant public policy issues which are more properly the subject of Congressional consideration rather than precipitous administrative action by the Commission.

I have concluded that these proposals depart dramatically from the original congressional purpose in PURPA and in several respects probably exceed our statutory authority under the Federal Power Act.

These and other serious concerns about the new concepts are also apparently shared by many State commissioners and most segments of the electric utility industry, as has been demonstrated in past public hearings on these matters. I think those comments have adequately demonstrated that the Commission should proceed with caution at this time.

Consequently and finally, I have concluded that the all-source competitive bidding proposal is badly, if not fatally, flawed in the first instance and in any event should first be considered by the United States Congress before the Commission issues any Federal rules which implement the concept administratively.

That concludes my testimony, Mr. Chairman, and I look forward to questions from the committee.

[The prepared statement and a subsequent submittal from Mr. Trabandt follow:]

COMMITTEE ON ENERGY AND NATURAL RESOURCES

UNITED STATES SENATE

HEARING ON PROPOSALS AT THE
FEDERAL ENERGY REGULATORY COMMISSION
ADDRESSING THE
PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978
AND THE FEDERAL POWER ACT

TESTIMONY OF
COMMISSIONER CHARLES A. TRABANDT
FEDERAL ENERGY REGULATORY COMMISSION

FEBRUARY 1, 1988

Committee on Energy and Natural Resoruces
United States Senate
February 1, 1988
Abstract of the Testimony
of the Honorable
Commissioner Charles A. Trabandt

Commissioner Trabandt recommends that the FERC proceed promptly to address needed refinements in the current PURPA cogeneration program, including adding new regulations on avoided cost that will provide guidance to states as to how to administratively determine such costs. He strongly opposes, at this time, pending recommendations by FERC Chairman Martha O. Hesse to adopt a market-oriented systems approach to PURPA implementation that seeks to develop a market that allows all generation to compete freely to meet future electric needs. His opposition is based on, inter alia, (1) the fear that all-source competitive bidding will effectively kill the evolution of state competitive bidding initiatives and destroy the de facto experiments in competitive bidding of all types across the country; (2) the failure to present to the Commission an objective systematic analysis of the various state bidding schemes, let alone any objective consideration of the many complex legal, technical and policy issues (e.g. state-by-state "balkanization" of new generation decisions) associated with all-source competitive bidding; and (3) the conclusion that the proposal will not provide American consumers with an assured and reliable electric supply at lowest reasonable prices.

He recommends promulgating general guidelines for state competitive process for qualifying facility (QF) capacity power in the traditional cogeneration program under PURPA and completely deferring further action on all-source competitive bidding at this time. Further the FERC should proceed with a limited set of independent power producer (IPP) experiments modeled on the recent Orange and Rockland case to gain additional evidence, information and experience. Also, Commissioner Trabandt recommends that FERC promptly initiate a review of transmission regulation and related bulk power regulation, including transmission issues that bear on the potential for creating "workably competitive" markets before any decision on all-source competitive bidding.

If the Commission proceeds to issue all three pending notices of proposed rulemakings (NOPRs) despite Commissioner Trabandt's opposition, the Commission should: (1) ensure a responsible procedural approach including (a) an extended initial public comment period of 90 to 120 days, (b) an additional 30 to 45 days for reply briefs, (c) regional conferences or hearings on the NOPRs, and (d) public meetings with appropriate state authorities (e.g. National Governors Assoc., NARUC, etc.); and (2) ensure that the National Environmental Policy Act (NEPA) is fully satisfied by full compliance with the Commission's recently issued Final Rule (Order No. 486) concerning regulations implementing its NEPA responsibilities. This Rule expressly requires in an informal rulemaking the notice of a draft EIS or EA with a FONSI to be included in the notice of proposed rulemaking.

Additionally, Commissioner Trabandt believes that the new concepts also raise significant public policy issues which are more properly the subject of Congressional consideration, rather than precipitous administrative action by the Commission. He has concluded that the proposals depart dramatically from the original Congressional purpose in PURPA and in several respects probably exceed the FERC's statutory authority under the Federal Power Act. These and other serious concerns about the new concepts, apparently shared by many State Commissioners and most segments of the electric utility industry, have demonstrated that the Commission should proceed with caution at this time.

Mr. Chairman and distinguished Members of the Committee:

One week ago, President Reagan delivered his last State of the Union Address to the Joint Session of the Congress. In that Address, he stated quite eloquently,

> And there is one lesson that has come home powerfully to me, which I offer to you now. Just as those who created this republic pledged to each other their lives, their fortunes and their sacred honor, so, too, America's leaders today must pledge to each other that we will keep foremost in our hearts and minds not what is best for ourselves or for our party but what is best for America. In the spirit of Jefferson, let us affirm that, in this chamber tonight, there are no Republicans, no Democrats, just Americans.

It is in that spirit that I respectfully recommend that this Committee and the Congress at large carefully review the pending proposals for electric power policy reform at the Federal Energy Regulatory Commission and consider, in President Reagan's words, "what is best for America." I have attempted to objectively assess these proposals and determine whether the proposed policy reforms, in fact, are good for America. I am compelled to report to the Committee that I am persuaded at this point that the proposals seriously fail to satisfy that critical test. In my judgment, the proposals will not improve this nation's electric power policy. In fact, they could be seriously detrimental to that policy. I sincerely appreciate this opportunity today to present my views on this important subject to the Committee.

At the outset, I want to respectfully commend Chairman Johnston and the Committee for scheduling this hearing on the pending proposals at this time, despite other important pressing legislative matters. It is my judgment that the Commission is at a critical juncture in its consideration of the pending proposals for administrative reforms under the Public Utility Regulatory Policies Act of 1978 (PURPA) and the Federal Power Act (FPA). The proposals have potential effects, impacts and ramifications for electric power policy and public utility regulation which transcend far beyond the original cogeneration program in PURPA and which depart dramatically from the original Congressional intent. The proposed actions therefore raise serious questions as to the extent to which these administrative initiatives should proceed in the absence of Congressional action. It is my conclusion that such far reaching and fundamental reform of this nation's electric power policy and Federal public utility regulation should only be adopted by Congressional action and must not be promulgated by a Commission administrative rulemaking. Consequently, I continue to believe that close Congressional review and scrutiny of these proposals, at an absolute minimum, is essential before the Commission becomes committed to a final course of action.

I should note, in all candor, that I testified to these same conclusions last September before the Subcommittee on Energy and Power of the House Committee on Energy and Commerce. The distinguished Chairman of the Subcommittee, Congressman Philip R. Sharp, subsequently responded to my expressed concerns in an opening statement for a later hearing on September 11, 1987. He stated then:

> Finally, I have given much thought to Commissioner Trabandt's advice that energy policy of this magnitude is the province of the Congress rather than an independent agency. Although that principle is axiomatic in the abstract, I resist the temptation to apply that principle to chill FERC's initiatives at this stage of development. As the details of FERC's proposals gain definition in the months ahead, there will be ample opportunity to determine whether one initiative, or parts of it, warrant Congressional action.

He closed his remarks with Francis Bacon's observation that, "[i]f we begin with certainties, we shall end in doubts; but if we begin with doubts, and are patient in them, we shall end in certainties."

I, in turn, have given much thought to Chairman Sharp's response to my testimony in September. Today, I appear before this Committee with full knowledge, if not necessarily complete understanding, of the several hundred pages of the pending proposals, which now have gained definition in the form of three Notices of Proposed Rulemaking (NOPR) to implement the proposals. There is no mystery or uncertainty now as to the exact definition of the proposed reforms under PURPA and the FPA.

As a result, the axiomatic principle of Congressional prerogative in energy policy formulation of this magnitude is no longer in an abstract status. I also appear before you with the knowledge that the Commission is now scheduled to act on those three NOPR's this month. Additionally, as I have stated before, I remain convinced that the Commission is institutionally committed to adopt the proposals in the NOPRs as final rules, unless dissuaded by other authorities in the Administration or Congress.

Consequently, I would submit most respectfully that the time for beginning with doubts, being patient with them and moving to certainties, as Bacon observed, is fast fleeting. Decisions at the Commission on these matters are, in terms of Congressional time, well nigh imminent on the NOPRs and shortly thereafter on final rules. Accordingly, I would make a special plea to this distinguished Committee, and also to your counterpart House Committee on Energy and Commerce and Chairman Sharp's Subcommittee, to carefully assess these pending NOPRs and determine whether the initiative, or parts of it, warrant Congressional action -- be it Congressional action in support or in opposition, or Congressional action to slow or redirect our efforts. In the end, the Congress, the Administration, and the American people must be assured that any final rules administratively reforming PURPA and the FPA are, in fact, what's best for America.

I would like to turn now to a discussion of the pending proposals for administrative reform of PURPA and the FPA in the NOPRs awaiting Commission action. In that context, I would start by referring to the remarks of Secretary of Energy, John Herrington, at the annual meeting of the Edison Electric Institute in Cincinnati on June 9, 1987. Secretary Herrington made several key observations that bear on our discussion today:

> The pressures to change electric power regulation are substantial and growing. The challenge will be to discipline these forces and not be rushed into changes that are undertaken just for the sake of change. The objective must be to make the system work better not just to make it work differently....
>
> Any effort to develop a consensus for reform of the Electric Power Industry must be based on a careful and deliberate process. The technical and political complexity of the issues involved, as well as the diversity of the industry from company to company and region to region, demands that all affected players get the chance to participate fully in any reform effort. The industry,

> consumers and regulators must all be closely involved in any effort to set a new course for this industry. Maintaining the high standards of the past will require a careful and thoughtful policy in response to a rapidly changing environment....
>
> It is time to begin an active effort to build a broad-based, bipartisan consensus for necessary reforms in electric power regulation. We cannot afford to let the fear of wrong answers intimidate us to the point that we are not willing to seek the right answers on a timely basis. A careful and deliberate process can yield workable answers that can benefit all affected constituencies....
>
> The journey will not be simple or easy, but too much is at stake in terms of the competitiveness of the American Economy and World Energy Security for us not to accept the challenge. If we all pull together, we will succeed and the American people will continue to enjoy an electric power infrastructuire that is the model for the world.

This statement, in my view, reflects great wisdom and common sense as to how the Commission must proceed to address these electric policy issues. Secretary Herrington's remarks emphasize for all of us the importance of a careful and deliberate process leading to a thoughtful reform of this nation's electric power policy and administrative procedures which will support that result. His remarks also highlight the national policy significance of the nation's electric industry and its status as the model for the rest of the world. I strongly support the Secretary's views and particularly would reiterate here his call for a broad-based, bipartisan consensus for any reforms in

Federal electric utility regulation. I also would re-emphasize his admonition that any such reforms must not be undertaken just for the sake of change. And, further, that the objective of such reforms must be to make the system work better, not just to make it work differently. In a very real sense, Secretary Herrington has articulated the criteria against which we should measure the proposed NOPRs and reforms to evaluate whether they are truly "what is best for America."

I do want to commend Commission Chairman Martha Hesse for providing needed leadership in focusing on and addressing these issues. While I disagree strongly with the pending NOPRs, I do not disagree that we should consider these general issues in an appropriate fashion. As Secretary Herrington emphasized at Cincinnati, "[w]e cannot afford to let the fears of wrong answers intimidate us to the point that we are not willing to seek the right answers on a timely basis" and "[i]t is the time to begin an active effort...". Chairman Hesse has earned our respect for her resolve not to be deterred by the difficulty of the challenge or intimidated by the fear of wrong answers. Certainly, Chairman Hesse deserves the bulk of the credit for focusing nationwide attention over the last year on these important national issues and the options for regulatory reform.

My testimony before the Committee today is based on a fundamental and honest disagreement, albeit of an agreeable nature I trust, with Chairman Hesse's proposals for reform contained in the three pending NOPRs. As I have stated in past speeches and testimony, I am increasingly convinced that those reforms will take the American electric industry and the American consumer down a very uncertain and potentially dangerous path. My discussion of the proposals today, in the face of that honest disagreement, is intended on a positive note to engender a completely open and healthy public debate at this hearing. I believe such a debate is imperative at this moment in light of the scheduled Commission action on the NOPRs later this month and subsequent Commission decisions on the final rules in a few months.

Chairman Hesse has framed well the critical decision in the implementation of PURPA facing the Commission. In a guest editorial in "Alternative Sources of Energy" last fall, Chairman Hesse stated:

> The big question before us... is whether we should take the more traditional approach to PURPA and try to refine the rules to eliminate the inefficiencies highlighted at our recent public hearings, or proceed down a path that relies increasingly on market-oriented systems.
>
> My preference is for the second approach. The best regulators in the world will probably not succeed in simulating market prices for

> generating capacity in an ever changing economic and technical environment. Instead, we can both satisfy the objectives of PURPA and help assure consumers of reliable and efficient power supplies if we rely on a regulatory framework that fosters a fair and competitive market -- a market that allows all generation to compete freely to meet future electric needs.

Also, the Department of Energy (DOE), in its formal filing of April 30, 1987, in the 1987 PURPA Cogeneration Docket (RM87-12), recommended that the Commission consider the extent to which it could legally adopt competitive market approaches for new electric generation capacity, including all-source competitive bidding.

The pending NOPRs would support the Chairman's stated preference for the second approach of proceeding down a path that relies increasingly on market-oriented regulatory systems for PURPA and which also would seek to implement an all-source competitive bidding approach for new electric generation capacity across the country. The proposals also are clearly intended to provide the regulatory foundation and imperative for a fundamental restructuring over time of the electric industry, eventually with new electric generation provided by generating companies (so-called gencos), which would be a separate sector of the industry from the remaining sectors engaged in transmission and distribution of electricity. Other companies would provide transmission and distribution services, either in combination transmission and distribution companies or separately as transmission companies (so-called transcos) and distribution companies (so-called discos). Additionally, in my judgment, the proposals will almost inevitably require that the Commission, and potentially the Congress, address the highly controversial and hotly contested issue of mandatory transmission access in response to administrative demands and likely judicial direction to provide mandatory transmission services under regulatory approaches dependent upon competition and market forces, in lieu of traditional Federal and state regulation. In that regard, I am reminded again of the prophetic words of that great American philosopher, Casey Stengel. Casey is reported to have said, "[i]f you don't know where you're going, you're liable to end up someplace else." In my judgment, the Commission unfortunately may be embarking on a journey which is likely to take this nation's electric industry and the American electric consumer down a regulatory path that will indeed end up someplace else.

I would also like to quote from a recent trade press interview of Chairman Mary Bushnell of the Illinois Commerce Commission (The Energy Daily, January 22, 1988):

> She is extremely cautious about FERC Chairman Martha Hesse's proposal for deregulation of electricity generation. She sees difficulties

> and problems and says that the approach has to be extremely cautious. In this she reflects the views of none other than Commonwealth Edison Chairman James O'Connor, who also believes that the large issues of service and obligation to serve have yet to be considered.
>
> The airlines and telephones are not examples of deregulation that have gone very smoothly, Bushnell says. "When you look at [FERC order] gas, you see monumental difficulties and we don't have legislation to make [Orders] 436 or 500 moot. It should never have had to be done in that way and that's what I'm afraid of on the electric side: that we will suddenly have some interesting order coming out of FERC, on PURPA or on independent power producers, and we'll have to ad-hoc ourselves by increments through a long, difficult process without ever having had a public discussion or a blueprint in the beginning on deregulation."
>
> Additionally, she is concerned about transmission and the effects on transmission of deregulation. In short, Bushnell wants a much better defined public policy on deregulation. She is concerned about its effects on her rural constituency and on small uneconomic-to-serve communities. Without airline regulation, she points out, it has become inexpensive to fly from coast-to-coast but sometimes prohibitively so to take short trips between small cities.

I also would respectfully invite the Committee's attention to a current analysis underway at the Office of Technology Assessment on the subject of increased competition in the electric power industry. One recent staff paper in draft identified five Alternative Scenarios for Increasing Competition in the Electric Power Industry. They included the following:

Scenario 1:	Strengthening the existing regulatory-utility bargain.
Scenario 2:	Expanding transmission access in the existing structure.
Scenario 3:	Competition for new bulk power supplies (all-source competitive bidding with all new power supplies in a "workably competitive" market and conditional transmission access as proposed by Commissioner Stalon).
Scenario 4:	All-source competition for all bulk power supplies with generation segregated from transmission and distribution services. (The full genco approach.)
Scenario 5:	Common carriers transmission services in a disaggregated, market-oriented electric power industry.

The accompanying text indicates that Scenario 3 "is loosely based on the Keystone and Hesse proposals." The pending proposals in the NOPRs would generally follow the outline of Scenario 3, with the exception of transmission access. These alternative scenarios and the accompanying text graphically demonstrate the range of public policy options within which the pending NOPR proposals should be considered and currently are under review and study by OTA. Unfortunately, the Commission has become committed to a Scenario 3 approach without any systematic comparison or analysis of such options. I have seen no analysis of any kind demonstrating that our attention should not be focused on Scenario 1. In effect, we are rushing to judgment on Scenario 3 without any rational basis.

I should also note that my substantive and procedural concerns appear to be shared broadly by interested parties. Public statements by various officials and correspondence available to me indicate that a number of State Commissioners, members of the Electricity Committee of the National Association of Regulatory Utility Commissioners (NARUC), the American Iron and Steel Institute, the Edison Electric Institute and many member companies, representatives of the QF industry and the IPP industry, and officials of the American Public Power Association and the National Rural Electric Cooperative Association, among many others, have similar concerns with regard to Chairman Hesse's pending proposal. I would be pleased to provide the Committee with copies of the public statements and the correspondence. Nevertheless, I cannot and do not speak for any of those officials or groups in this testimony. Only they can represent and speak for themselves, as I am sure they will in these hearings. In fairness, I should also observe that there are some supporters in academia, IOUs, and other groups for the general thrust and certain specific elements of Chairman Hesse's recommendations, although I believe most have reserved any final judgment until they have the opportunity to review an actual written proposal. I note these expressed concerns of others only as an indication that there is a very serious and general view that the Commission should not act precipitously this month on these pending recommendations. There also is a general view, which I strongly support, that the net effect of the focus on all-source competitive bidding and IPPs has been to deter the Commission for almost a year from addressing the Federal transmission regulation and interstate bulk power regulation issues, which are clearly within our legal authority and jurisdiction and which would have far greater positive impact on the electric world (i.e. much more bang for our regulatory buck).

The Commission has grappled for some years with the question of how to address the issues of reforms in Federal electric regulation. In 1985, paralleling similar action with regard to Federal natural gas regulation, the Commission initiated a major Notice of Inquiry in Docket No. RM85-17-000 with two distinct phases. Phase I addressed coordination trade and transmission services. Phase II focused on bulk power requirements service. All interested parties were encouraged to participate in that proceeding and, in effect, to take it very seriously in line with the parallel proceeding in natural gas, which led to a major Commission order attempting to restructure the natural gas industry. An enormous record was adduced in the NOI process on a broad spectrum of highly complex and technical electric regulatory issues. Unfortunately, that record has not yet been the subject of any objective or systematic analysis and review presented to the Commission. In my judgment, it is absolutely imperative in all fairness to each of the parties in that proceeding that the Commission have the benefit of an objective systematic analysis and review of the NOI proceeding, as well as any resulting policy options and recommendations, before embarking on a wholly new electric strategy. Also, it strikes me as intuitively obvious that the Commission has the need and, indeed, the obligation to master that record as the only currently available general compendium of public comment and information addressing the Commission's current regulatory policy, before striking out in any dramatically different policy direction. In a collective sense, the Commission institutionally is "flying blind" on any electric strategy, unless and until we have thoroughly reviewed a systematic analysis of the record and resulting policy options. In fact, late last year (November 30) before an industry group, Commissioner Stalon was asked about the 1985 NOI. He stated as follows: "These comments came in and they went into a black hole. I cannot believe they went into a black hole without an awful lot of people pushing them into that hole." I agree.

Last year, the Commission held a series of four public conferences in Docket No. RM87-12-000 constituting a de facto Notice of Inquiry with regard to the status and implementation of section 210 of the Public Utility Regulatory Policies Act of 1978. As you may recall, there was some skepticism as to the intent and seriousness of the public conferences when first announced, with some suggestion that they merely constituted a public relations exercise. I was convinced then and now that it was timely and very necessary that the Commission conduct a thorough review of the current PURPA program and also a comprehensive analysis of the future role of the PURPA program in national electric policy through the 1990s and into the 21st century. To that end, I attended each of the public conferences, urged that they not be dismissed as a "PURPA road show" and attempted to support my fellow Commissioners in adducing the most complete and comprehensive record on PURPA status, implementation, and future role. I am satisfied that the full record of those proceedings does, in fact, provide a very complete and comprehensive basis for reviewing the PURPA program. I would note at the same time, however, that the record in Docket No. RM87-12-000 was not intended and does not support any systematic analysis of broader policy options, such as those now under very active consideration. In my judgment, the PURPA record alone does not and was not intended to shed any light on the broader policy options, where we remain in the condition of institutionally "flying blind." Quite simply, we still do not have yet the analytical foundation for making any informed judgments on the broader policy options or new directions for an electric strategy, particularly all-source competitive bidding.

What is most needed before the Commission becomes committed to any specific direction or proposal at this time is a general review and hopefully a consensus as to the nature of the problem(s) in the electric industry we should address. For example, what are our specific objectives in dealing with these problems? Under what legal authority do we proceed? What is the appropriate role of the Federal Government by comparison to individual states? What is the best policy option(s) to achieve our objective? Is our objective best served by encouragement from the Federal level or by mandating change? And so forth. We quite simply have not had the necessary analysis of the NOI and that dialogue within the Commission to this point. Until we have reached some tentative conclusions on these questions, I believe it is premature to launch major policy initiatives implementing all-source competitive bidding.

Notwithstanding my serious reservations about rushing to major policy initiatives without the necessary prior record analysis and Commission dialogue, it appears now that we may be headed in just such a direction, in effect, leaping before either looking or thoroughly analyzing the issues. The Commission was presented with three Notices of Proposed Rulemaking last month, which center around a new requirement for all-source competitive bidding.

As I have stated before, I am persuaded at this point that any FERC requirement that any competitive bidding must be all-source competitive bidding under the PURPA rubric would effectively kill the evolution of state competitive bidding initiatives and destroy the _de facto_ experiments in competitive bidding of all types across the country. I believe that conclusion is generally shared by the state regulatory and industry proponents of competitive bidding under PURPA. Such a result would deny the Commission, the states, and all elements of the industry the real-world experience to evaluate fully and objectively the concept of competitive bidding in the electric industry.

At this stage, ironically, the Commission is still attempting to identify and analyze all of the states which have some form of competitive bidding in the PURPA program. The Commission has not been presented with any systematic analysis of those various bidding schemes, let alone any _objective_ consideration of the many complex legal, technical and policy issues associated with all-source competitive bidding under the Keystone-type proposal. For example, it is quite clear that many states simply would not have the basic legal authority under PURPA or otherwise to conduct an all-source competitive bidding system, in the absence of major amendment to Federal law that likely would invade current state jurisdiction. Those states effectively would be denied any form of competitive bidding. Consequently, the best possible result of an all-source requirement would be a patchwork of competitive and non-competitive approaches across the country. Also, it is clear that any eventual widespread adoption of all-source competitive bidding, if it became legally possible, could lead to the state-by-state "balkanization" of new generation decisions in the sense of the KEPCO line of cases (see e.g., FERC Opinion No. 266), which would fly in the face of this nation's two decade old commitment to upgrade the integrated regional power pools since the New York City blackout.

It is clear that the process would be heavily biased against baseload coal and nuclear plants, to the extent that, as a practical matter, they would be all but foreclosed by the process. Additionally, the implementation of any individual state's all-source competitive bidding necessarily must have some form of mandatory state-wide centralized planning process, as exists in the Pacific Northwest under the Pacific Northwest Electric Power Planning and Conservation Act and as clearly envisioned in Phase I of the Keystone proposal. The all-source competitive bidding proposal clearly is based on a prior, so called, ex ante approval by a state commission of the need for power by a utility before any bidding process can commence. Furthermore, a major element clearly implicit, although not yet expressed directly, in any all-source competitive bidding is some form of mandatory transmission access, as also envisioned in the Keystone proposal and proposed by Commissioner Stalon and many other groups. Of course, these are just some of the major issues currently under review in Massachusetts in the ongoing proceedings at the Department of Public Utilities in its Docket No. 86-36-A and in Virginia in the proceeding of the State Corporation Commission Case No. PUE870080. Consequently, these and many other very serious issues must be addressed by the Commission before the Commission is committed to action on competitive bidding, particularly an all-source competitive bidding in the context of an administrative Keystone proposal. Ironically, all that the states have sought in the PURPA proceeding in Docket RM87-12-000 is a general endorsement from the Commission that competitive bidding for QF capacity is an option under PURPA. I am persuaded that such an endorsement with broad guidelines relevant to the existing PURPA program could be quickly accomplished in a policy statement adopted in lieu of the all-source competitive bidding NOPR.

Let us turn now to a more specific review of the pending proposals in the three NOPRs.

All-Source Competitive Bidding

The conceptual heart of the pending proposals is the All-Source Competitive Bidding (ASCB) process. ASCB, in turn, is closely interrelated with the Independent Power Producer (IPP) administrative deregulation. In many general respects, the ASCB is the administrative version of the so-called Keystone proposal, which would require major amendment of existing Federal law to mandate its implementation on a generic nationwide basis. ASCB here is also a state-by-state approach, rather than the regional approach intended to be mandated by the Keystone proposed amendments to existing Federal law. The ASCB here also has many aspects which would parallel the general direction of the Northwest Electric Power Planning and Conservation Act of 1980 (16 U.S.C. §§ 839 et seq.) albeit on a state-by-state basis rather than on a regional basis, as under that Act.

The ASCB would provide Federal rules for the use of bidding procedures by states to establish avoided cost rates for Qualified Facilities (QFs) under the traditional PURPA cogeneration program. ASCB also would be used in conjunction with the IPP proposal to establish just and reasonable rates for IPPs participating in the ASCB competitive process. Other potential sources of supply addition, such as purchased power, including imported Canadian power, demand reduction (conservation) and load management improvement would be included in one form or another in the ASCB process. As such, the ASCB becomes the regulatory foundation for the market-oriented competitive approach in lieu of traditional embedded cost regulation. Additionally, ASCB provides the initial stage in support of the drive to provide over time new supply from an evolving genco sector of a less integrated electric utility industry to companies providing transmission and distribution services.

ASCB, thereby, will be a very significant first step in a concerted and phased effort to implement the all-source competitive bidding process nationwide for all new generation plants and all future electric supply in the United States. This first step in the pending proposal will utilize Federal regulatory action to implement administratively -- as much as legally possible -- the ASCB process, coupled with the administrative deregulation in large measure of the IPPs/gencos of the future. Despite oft-repeated protestations to the contrary, I remain absolutely convinced that such a result -- as a very significant first step -- is the basic and true objective of the pending proposals in the NOPRs.

I respectfully submit that the Congress and all interested parties should not lose sight of that fundamental intention and direction, nor be mesmerized by assurances of other more restrained objectives. These proposals, in my judgment, must be assessed and evaluated in the context of both the first step proposed here and the ultimate eventual objective that is intended to follow. I fear that, too often, interested analysts have become mired in the challenging complexities and details of the ASCB process, without completely considering the more significant policy issues raised by the ultimate objective and this very significant first step. Additionally, Commissioner Stalon argues forcefully for the use of the Commission's conditioning authority under the FPA to require mandatory transmission access as a condition of a utility's participation in the ASCB. I would note in passing that Chairman Hesse at the September 10 House Subcommittee hearing endorsed Commissioner Stalon's testimony and figuratively embraced it as the intellectual support for her proposal at that time. Most importantly, with the exception of the transmission portion of the testimony, Commissioner Stalon's general thesis and detailed argumentation still stands as the primary rationale and justification for the pending proposals in the NOPRs. As to the potential significance of the transmission access issue, please see the separate section on that issue later in this testimony.

Commissioner Stalon's testimony at the September 10, 1987, hearing of the House Subcommittee on Energy and Power is an excellent, and perhaps the most thoughtful and fully developed, articulation of these objectives. I commend his September 10, 1987, testimony to anyone interested in a more detailed recitation of the underlying rationale for the drive to implement a new Federal regulatory policy with ASCB, IPPs and eventually a genco sector. Attached to this testimony, for the convenience of the Committee, is an abstract of Commissioner Stalon's prepared testimony for the September 10th hearing. I trust that my distinguished colleague and friend will also advance his arguments in testimony filed with this Committee for today's hearing. I would note several points in his September 10th testimony. At page 2, paragraph 3, he candidly signals his analytical punch by referring to regulatory and legislative policymakers who accept the *primacy* -- repeat *primacy* -- of the economic efficiency objective. I would counter with the argument that, as a matter of law under the FPA and PURPA, there cannot be such unconstrained primacy of the economic efficiency objective. I also believe that, as a matter of policy, there should not be primacy of economic efficiency over system reliability, states rights, consumer protection, ratepayer equity and the general public interest. Commissioner Stalon also proposes the use of *de facto* marginal cost pricing, and state-by-state centralized planning.

The pending proposal includes an ASCB process which could only be implemented by a state on a voluntary basis. However, the state could not have *any* competitive QF process, unless it adopted the exact ASCB process specified in the rule. The state would have the option of electing to adopt the ASCB process or electing the new form of avoided cost regulation contained in the companion proposal in a third NOPR. If a state elects the ASCB process under the pending proposal, it will be required to satisfy a series of specified conditions. Efficiency standards would be waived for oil and gas QFs (seemingly in direct contravention of the primary objective of section 210 of PURPA: reduced reliance on fossil fuels) which are successful participants in the ASCB. The ASCB would have to be used for all capacity needs in a specified time frame, without any allowed set asides. Once the ASCB process has been initiated, other forms of capacity acquisition, such as negotiated purchases, would be prohibited. The ASCB process, in fact, must consider all-sources of supply in some manner and similarly should also consider conservation and load management proposals. Individual states will decide and control the specific participation of various classes of supplies. The native electric utility could be barred from any participation in bidding for its own requirements altogether or, in the alternative, allowed to participate in a potentially constrained and limited way. Subsidized entities, such as public power organizations, would be totally barred from participation in the bidding process. The proposal makes clear that there is strong Federal emphasis and imperative for all-source participation of both supply and demand options in the overall ASCB process, although there are certain areas of discretion and flexibility provided to states electing the ASCB option as to the process and selection of participant classes. The ASCB would mandate that the process must include an *ex ante* determination under an appropriate state procedure that there is a requirement for additional supply (*i.e.* need for power), a resulting solicitation with specified elements, a selection procedure, state certification of the selected bidder (*i.e.* least cost, acceptable terms, and prudent) and subsequent contract award. The process could include several states participating jointly in running the ASCB process and making the required decision, where necessary to consider multi-state utilities, under specified requirements. The Commission would not address Federal or state transmission regulation in these proposals as part of ASCB.

Several observations about the ASCB proposal are appropriate at this time. The threshold issue for me is why the Commission should *even* consider Federal regulatory action now to implement nationwide ASCB with administratively deregulated Independent Power Producers in any form. Despite the open zealousness and fervor of the Commission's commitment to this concept, there has not been any -- repeat any -- substantive analysis, justification or rationale proffered from any quarter to support the adoption of the basic concept other than Commissioner Stalon's September 10, 1987, House Subcommittee testimony. Ironically, the very first and only attempt to provide such analysis, rationale and justification is in that testimony of my learned colleague and good friend, Commissioner Stalon. Prior to and since that point, all we have heard is unmitigated assertions from rather simplistic economic theory. As one prominent Commission official has said, it simply must be a rebuttable presumption that any form of competition will be more economically efficient and therefore should be adopted.

The justification included in the pending ASCB proposal is little more than a restatement of the points made in Commissioner Stalon's testimony. As discussed in the section of this testimony on IPPs, much of the purported analysis is based on the studies of a small circle of economists who have written on the general subject. Also, as discussed in the section on IPPs, the most recent studies, such as North American Electric Reliability Council (NERC), virtually render the "supply and reliability crisis in the early 1990s" a virtual analytical red herring, so that we need not rush to judgment to implement the ASCB process now.

Legal issues are of key importance in the ASCB proposal as well. First, the bidding NOPR assumes authority that may not expressly be delegated to FERC by section 210 of Title II of

PURPA. The extent of FERC's authority to prescribe rules is limited by the express language contained in section 210. The NOPR latches on to the purposes expressly contained in wholly unrelated Titles in PURPA in order to justify the arguably extra-legal action proposed in the pending NOPR -- implementing administratively the ASCB process.

Although passing reference is made to the statutory objectives for the cogeneration program under PURPA, there simply is little doubt that the ASCB process here is solidly and almost exclusively founded on the primacy of economic efficiency argued by Commissioner Stalon. The legal analysis presented in the proposal makes a valiant, but I fear, unsuccessful attempt to establish a statutory nexus between the avoided cost determination for QFs under PURPA and the ASCB process proposed here for QFs, IPPs, possibly native utilities, conservation and load management, ex ante state determinations of need and state certification of selected bidders, etc. Also, of course, the legally obvious question of the just and reasonable determination under the FPA for IPPs is also raised here, as discussed in detail in the IPP section. I remain convinced, as well, that the ASCB process will trigger many significant legal questions under state law as to the relevant legal authorities of state commissions to carry out all of the functions and requirements contemplated by the ASCB process. In the alternative, there may be serious questions as to whether this Commission has the authority to delegate effectively Federal statutory authority to state commissions to implement various elements of the ASCB process, clearly well beyond the original Congressional intent for the cogeneration program under PURPA. Of course, as I indicated at the outset, these proposals arguably render the original intent of Congress in section 210 of PURPA a dead letter. Nevertheless, the Commission, in my judgment, here would be treading on very dangerous legal ground in terms of any such _de facto_ delegation of additional Federal authority to state commissions.

I constantly return to the basic question on the ASCB process in these proposals, to wit: why must we consider the all source competitive bidding process and the IPP proposal in the first instance. I believe the Commission could legally sanction the on-going and very healthy experimentation currently underway in several states with a simple and straight forward policy statement providing general guidelines for various forms of competitive bidding processes for determining avoided cost and other factors under PURPA, emphasizing the statutory mandates in section 210 of PURPA. It is most ironic that the current ASCB proposal somewhat grudgingly admits that _no_ state today is implementing an all-source competitive process and, as a result, concedes that the Commission would have to grant necessary flexibility in some respects to allow continued experimentation in the states. The flexibility is also necessary to avoid potentially precipitating the termination of those programs by states who originally initiated the competitive process in the first instance. In any event, I remain persuaded that the Commission could give the necessary legal guidance to support the ongoing experimentation by the several states, without having to impose the ASCB process, if that were, in fact, the only objective of these proposals, which it clearly is not.

I am troubled as well by the seemingly contradictory and potentially discriminatory aspects of the ASCB proposal. If the utility seeking additional capacity is either barred altogether or only allowed to participate in a constrained and limited manner in the bidding process, the process may foreclose completely or prejudice badly the best possible source of supply in a given situation. The total bar on subsidized entities, including public power organizations, similarly could prevent participation of an important alternate supplier of needed capacity under various circumstances. By comparison, the conservation alternative conceivably could include, as recommended by Chairman Sharp in his letter of November 13, 1987, to the Commission, the participation and selection of conservation entrepreneurs proposing to be awarded cash payments for retrofit of existing large customer loads (such as a proposal to retrofit the ten largest buildings in a city with more efficient electric equipment) or replacement of large numbers of dispersed applicances (such as a proposal to replace 10,000 refrigerators with more energy efficient units in the homes of residential consumers in these service areas). It is not at all clear to me why the Commission would wish to design an ASCB process in this manner. Additionally, such an inconsistent approach inevitably will trigger serious charges of undue discrimination under the Federal Power Act.

Furthermore, the treatment of multi-state utilities with the requirement for joint participation and decisionmaking by all of the state commissions with jurisdiction over the affiliated utilities in the respective states could precipitate a series of difficulties. There undoubtedly would be problems with the mechanical aspects of the process and the eventual decisionmaking as to the joint determination of the need for power at the outset, the specific nature of the solicitation and selection process, and the certification of the winning bidder. This concept, if implemented, would establish a de facto regional regulatory authority under PURPA and the FPA, which raises many complex and difficult issues. For example, if such a regional group of individual state commissions initiate a bidding process, new capacity could not be acquired by the multistate utility until all the state commissions agreed to certify need for power. At any point thereafter, each subsequent decision would require unanimous approval throughout the process to the final unanimous certification of the winner. I recall how difficult these questions were at the time of this Committee's consideration of a regional approach to electric power planning in the Northwest Power Act. There are many other questions to be considered in the context of the proposed regional approach, which simply have been ignored to date and must be dealt with before we proceed. Many of these issues also, in my view, are clearly within the province of the Congress and not the Commission under existing law.

I also believe that any proposal to adopt the ASCB process approach must bear a heavy burden of persuasion that the approach, in fact, will be a net improvement -- in terms of regulatory objectives -- over the healthy evolution already well underway at the Federal and state levels in regulatory refinements and electric market operations. For example, the Commission must also consider carefully the obvious impact of this proposal on (1) an implied requirement for state-by-state centralized electric power planning, (2) necessary transmission access, (3) operation of bulk power markets, and (4) system dispatchability and reliability among several other important factors. In regard to the latter factor I would invite the Committee's attention to the report last year on that subject by the North American Electric Reliability Council. Until the Commission institutionally has an excellent grasp of a well-defined proposal and is persuaded by an objective systematic and thorough analysis that it would be such an improvement, we should not act to adopt it by a Notice of Proposed Rulemaking. In my view, that clearly is not the case with the pending proposal.

I want to state clearly that the Commission, in general, should rely on market forces and competition in our regulatory programs wherever possible. Indeed, it is for that reason that I have been such a strong supporter of state experiments in competitive bidding approaches, under PURPA, as well as other Federal and state initiatives such as the Western Systems Power Pool. In fact, I believe the Commission's Order in that case (38 FERC ¶ 61,242 (March 12, 1987)) spells out quite well and in great detail the basis upon which the Commission should proceed to consider substituting market forces and competition for traditional electric regulatory concepts and public utility ratemaking. I particularly invite your attention to the relevant discussion in 38 FERC at pages 61,789 and 61,792, and to our conclusion at page 61,782 which states as follows:

> In fact, we expect that the primary benefit of this Experiment will be the ability to use the information gained from the Experiment as one of the resources in the Commission's ongoing review of electric regulatory policies and, thereby, ultimately to help ensure the lowest rates possible for electric consumers.

Let me conclude this section with one final thought. The electric power industry of this nation is the backbone of the American economy and will be increasingly so in a future high technology world. It is the finest, most efficient and most reliable system in the world, despite all of the outstanding issues and problems. The traditional regulatory compact certainly has been severly strained, but not irreversibly broken, by the base load nuclear power programs of the past fifteen years. We should not risk the future performance of that system to solve past problems or by rushing to judgment this year on largely unsupported economic theory -- institutionally flying blind into this nation's future. We should not and must not act on any new regulatory approach -- let alone knee jerk to a pop concept, as the Executive Director of the American Public Power Association has characterized this proposal -- unless and until we have (1) clearly identified the objectives and problems, (2) arrayed fully the legal and responsible options, including increased reliance on truly workable competitive markets, wherever possible, (3) systematically and objectively analyzed the options, and (4) with well reasoned decisionmaking, chosen our direction with a rational basis which fully recognizes regional diversity and state regulatory jurisdiction. Unless and until we have completed such an effort, we should not implement any major new concept, especially all-source competitive bidding. I sincerely hope that on this issue, the game at the Commission ain't over until it's over as Yogi Berra has said with such persuasive, albeit uneconomic, logic.

Independent Power Producers

The pending proposal would in large measure administratively deregulate a new classification of non-traditional electric power generating companies, so-called independent power producers (IPPs). The proposal is euphemistically dubbed as streamlined regulation for IPPs, but I do not propose to engage here in a semantical debate as to when streamlining becomes the functional equivalent of administrative deregulation, as it clearly does here. In general concept, an IPP would be a generating entity which lacks significant market power, is not affiliated with the local electric utility servicing the IPPs market area, and is not a qualifying facility under PURPA. The IPP proposal is closely interrelated with the all-source competitive bidding proposal, in that the administratively deregulated IPPs would be an essential source among all of the sources to be included in the new competitive bidding process. The IPP proposal also is a critical element in the general direction set by the proposals to move over time towards a gradually restructured electric industry, with the bulk of new generation capacity provided by separate and distinct generation companies (gencos) unaffiliated with the remaining integrated transmission and distribution companies (despite unpersuasive disclaimers in the NOPR to the contrary).

The pending proposal would modify existing generic regulatory treatment of IPPs in several ways to effectuate the virtual administrative deregulation. For example, there would be a blanket prior certification procedure generally available for qualification by an IPP to be largely deregulated. IPP rates would be set on the basis of the new all-source competitive bidding or, in the alternative, a negotiated rate with a price cap reflecting the purchasing utility's marginal cost. There would be no traditional cost-based ratemaking, and IPPs would be relieved of almost all related requirements for rate filings, accounting, reporting, record keeping, fees and charges and related limitations on corporate activities, finances, and organization.

The profferred rationale for the proposal involves several key arguments. One argument is that traditional regulation of IPPs results in increased electric costs, because of the resulting disincentives for this particular supply option, especially in light of potentially higher financial risks.

Another related argument is that removal of the disincentive by administrative deregulation will expand the range of supply options available to electric utilities. The markedly reduced regulation also would place the new class of IPPs on a more comparable regulatory basis with qualifying facilities and, thereby, provide IPPs with a more competitive position in the all-source competitive bidding process. The enhanced competitive position of IPPs, in turn, could advance least cost alternatives, innovative technologies, and further shift risks from ratepayers to investors. Another argument repeated more generally throughout the proposals is to the effect that the United States potentially faces capacity constraints and reliability problems in the early 1990s, and may also in the end be required to invest excessive amounts of capital in less economically efficient options to provide the needed capacity and reliability under unfavorable conditions.

There are many technicalities associated with this proposed administrative deregulation, or so-called streamlining of IPP regulation, which are best left for any eventual rulemaking proceeding. Several general policy comments are appropriate with regard to the IPP proposal. First, as elsewhere in the three proposals, there is virtually no supporting evidence or specific analysis as justification for many of the key arguments and policy conclusions. For example, on the question of an imminent national capacity crisis, great weight is given to government and private studies which are five years old and clearly out of date. By comparison, the most recent Annual Summary of the North American Electric Reliability Council (November, 1987) with Electric Supply and Demand for 1987-1996 for the Nine Regional Reliability Councils can be objectively read to conclude that there is no such capacity or reliability crisis through that period, let alone in the early 1990s, under reasonable assumptions of demand growth and existing planned capacity. One would expect that the Commission would have a reasonably clear vision as to the current facts and projections relating to supply and demand as it may relate to any policy option, rather than appear to be premising the need for regulatory reform, in large part, on out-of-date and now inaccurate projections. In any event, the imminent crisis argument well illustrates the badly flawed nature of the justification for the main thought in the proposal in the first instance.

Without being too specific and perhaps unfair to the group of individuals involved, much of the underlying rationale is drawn from a very small circle of those engaged in the fields of theoretical and applied economics. That result obtains in the IPP proposal, as well as in the other proposals, because the general rationale is largely founded on economic theory, rather than any extensive body of real evidence, practical experience or related analysis. It is difficult to characterize more fully this problem without getting into the specific details of the NOPRs. Nevertheless, I continue to have a serious concern that these proposals are too dependent on mere theoretical economic concepts to support the adoption of a wholly new generic nationwide regulatory approach to IPPs with virtually no available evidence or experience with these concepts, which remain largely untested in real world practice.

The IPP proposal addresses the issue of the Commission's basic legal authority under the Federal Power Act to administratively deregulate IPPs in large measure. The legal question turns fundamentally on the degree to which the Commission has authority to replace traditional cost-based regulation with market-oriented regulation, which relies on competition and market forces to satisfy the "just and reasonable" satatutory requirement of the Federal Power Act. The legal debate which is sure to ensue if the Commission proceeds with these NOPRs will turn on the Commission's eventual judgment as to how far it can stretch, but not break the relatively few legal precedents argued as supporting the proposed market-oriented approach to a just and reasonable determination. Cases such as Wisconsin v. F.P.C., 373 U.S. 294 (1963), F.P.C. v. Texaco, 417 U.S. 380 (1974), and Farmers Union Central Exchange, Inc. v. FERC, 734

F.2d 1486 (D.C. Cir. 1984) will be grist for a highly contentious legal debate as to the extent to which the Commission can rely on competitive bidding and negotiated contract rates in reaching a just and reasonable conclusion. For my part, I have often quoted favorably from the opinion of the U.S. Court of Appeals for the District of Columbia Circuit in Electricity Consumers Resource Council v. FERC, 747 F.2d 1511, 1514 (1984) (ELCON), where the Court struck down a proposed rate design using a marginal cost concept rather than traditional rate design, because "mere reliance of economic theory cannot substitute for the articulation of a rational basis for an agency's decision." While I have not come to any final conclusions as to the extent of the Commission's flexibility in such market-oriented ratemaking, I am not persuaded at this point that the pending proposal will either satisfy or avoid the ELCON standard. Certainly, the Commission would have to bear a particularly heavy if not impossible burden of persuasion with the Court, because the proposal here attempts to establish a generic nationwide ratemaking approach for IPPs, which is dependent in part on marginal cost pricing and largely justified at this time on unsupported economic theory.

I must note in this regard that the Commission already has demonstrated a disposition to seize on economic theory as the primary basis for making substantive law judgments. That disposition was reflected recently in the Baltimore Gas and Electric Company (BG&E) case (40 FERC ¶ 61,171 (August 7, 1987)). In a concurring opinion, I emphasized my concern about this practice (even though I generally supported the BG&E proposal), as follows:

> The order should have been modified to remove some unnecessary discussion, which appears throughout the order. Essentially, we should have approved the proposal because there is no objection and because our approval will permit the auctions which should result in greater economic efficiencies and customer savings. Unfortunately, the order also includes several extraneous recitations from the dogma and liturgy of economic theology, which appears to be sweeping across the Commission's electric regulatory landscape with the religious fervor and zeal of the 12th Century Crusades.
>
> The order should accept the rates for filing without suspension and grant waivers. This is what the order claims to do in the ordering paragraph. But the order goes further and finds the rate filing to be just and reasonable (despite granting BG&E's request for waiver of the requirement to file embedded cost data). We quite simply do not have the cost data and analysis to support the just and reasonable conclusion. According to our practice and our regulations (18 CFR 35.4) accepting rates is permission to become effective but not approval.

I believe it is noteworthy that the BG&E opinion is now being cited as a significant precedent in the pending proposals for the proposition that the Commission now is willing to judge rates as just and reasonable in the absence of embedded cost data, where the rates are the result of any competitive process, such as the auction in BG&E. This BG&E precedent also has been argued as support for the competitive bidding process and resulting just and reasonable IPP rates. In my view, the Commission must resist this recent tendency to seize on otherwise unsupported economic theory in its electric regulatory policies.

For better or worse, this potential legal impediment under existing law in the Federal Power Act was well recognized and identified by the Department of Energy in its April 30, 1987, comments in the PURPA review proceedings (Docket No. RM87-12-000). DOE made the following comment:

> FERC's authorities to accomplish such reforms under existing statutes is unclear. It would be appropriate and timely for FERC to carefully evaluate its authorities to extend pricing treatment under bidding systems implemented through PURPA to non-qualifying facilities (i.e. IPPs).
>
> Is there a legal basis to determine the price resulting from an auction market as a "just and reasonable" rate under the strictures of the Federal Power Act? If so, FERC should modify the rules under PURPA so as to allow facilities which do not currently qualify under section 210 of PURPA to be able to compete in auction markets conducted under PURPA authorities. If it is determined that FERC does not have this authority under current law, a legislative remedy would be required to accomplish this objective. Such changes in PURPA, whether made by rule or by modification in the law, would need to be carefully developed in order to assure that free and fair competition would result.

If the Commission proceeds with the IPP and all-source competitive bidding proposals, we ultimately will obtain an answer to DOE's legal question. If the answer objectively is an unqualified "no", as I currently fear under the existing legal analysis, the IPP proposal and the related aspect of the all-source competitive bidding proposal probably would be badly, if not fatally, flawed. Additionally, the associated drive to an eventual dependence on a newly emerging genco supply sector in a less integrated electric utility industry should be promptly halted on legal grounds.

Several observations should be made on the non-ratemaking administrative deregulation in the IPP proposal. There may be merit in exploring some form of much more limited generic procedures for obtaining some streamlined regulatory oversight for IPPs in the non-ratemaking areas. Indeed, the FERC has already started down this path as reflected in the St. Joe Minerals case, 22 FERC ¶ 61,211 (Feb. 23, 1983) and the Cliffs Electric Service Company case, 32 FERC ¶ 61,372 (Sept. 17, 1985). More recently, the Commission this year approved a very limited proposal by Orange and Rockland to obtain modest amounts of inexpensive peaking power from its industrial customers (potential IPPs) on a buyback basis, with Commission prior approval of a series of non-ratemaking waivers and a fixed tariff schedule reflecting the utilities avoided cost (42 FERC ¶ 61,012 (January 15, 1988)). These cases reflect a willingness of the Commission to waive various accounting and reporting requirements under certain well defined circumstances and thereby move in the direction of increased regulatory flexibility for IPPs. This policy appears to make sense for individual IPPs which are just price-takers, i.e. purely generating stations by themselves with no monopoly power over markets. To the extent such a policy may have some merit, why not expand it incrementally and monitor it? For example, the Commission could consider one or more experiments involving greater regulatory flexibility for IPPs with the voluntary participation of individual utilities and state commissions that wish to explore this option for future acquisition of generation capacity. Such experiments, for example, could utilize the general concept approved by the Commission in the Orange and Rockland case for blanket prior waivers and a fixed tariff for power acquisitions from customer and/or non-customer IPPs, developed and approved on a case-by-case basis.

Administrative Determination of Avoided Cost

The administrative determination of avoided cost (AC) was the subject of a great deal of comment in the Commission's PURPA public conferences in 1987. It is the one area in the pending NOPRs for which there is a strong record supporting action now by the Commission. It is truly unfortunate that the Commission has deferred action until this point, it appears that the avoided cost proposal has become a virtual hostage to the unrelated ASCB and IPP proposals for reasons possibly other than because it is truly interrelated to them. For example, it has been suggested that the avoided cost NOPRs have been packaged with the ASCB NOPR and the IPP NOPR to create an all or nothing dilemma for certain elements in industry. In fact, the avoided cost NOPRs is completely unrelated to the ASCB and IPPs proposals and it should be severed from this package of NOPRs and promptly issued for early final decision. In my judgment, the Commission is obligated to refine the avoided cost concept and the traditional PURPA program without further delay and without any further packaging with another linkage to the ASCB and IPP NOPRs.

The pending proposal would largely refine the existing regulations on the AC administrative determination. A number of problems identified in the record of the public conferences with regard to past and current administrative determinations are addressed in the rulemaking. The net result is that the proposed revised rules are much more sharply defined as to qualitative factors, utility capacity need, wholesale sources and other aspects of the determination.

On balance, this specific portion of the proposals does respond to the record in the PURPA public conferences and makes a concerted attempt to refine the original avoided cost regulations to reduce or eliminate the identified problems. I have consequently recommended that the Commission proceed to address the issue of refinement of the PURPA regulations within the confines of the existing program. While specific elements of the proposal in the NOPR may not be acceptable in the end, I do support a prompt effort to deal with the traditional PURPA cogeneration issue, without having to rush to judgment on the ASCB process and the related IPP proposal at this time.

Transmission Regulation

In the face of ever increasing criticism, the Chairman continues to defend her decision not to deal with the issue of transmission regulation until after the Commission issues proposed rules on all-source competitive bidding and independent power producers (IPP). While the Chairman states that "transmission obviously is a key -- and very complex -- factor in moving toward market solutions," 1/ she continues to reject the calls of QFs, utilities, regulators, industrial customers,

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1/ Chairman Hesse, in testimony before the United States Senate Committee on Energy and Natural Resources on July 9, 1987, discussed her views on what the FERC's electric policy direction should be.

other end users, etc. who feel that FERC must first address the transmission issue before it proceeds to adopt rules on competitive bidding, or, at a minimum, it should address these issues simultaneously.

Maine Commissioner David Moskovitz expressed this view when he said:

> Transmission is clearly the place where the federal jurisdiction has the greatest role. That is clearly the area where the states really need some help, and where Martha Hesse could really do something important. There is no such thing as a competitive market out there -- unless you can get the goods to more than one customer, there is no competition. And what utility in its right mind is going to want to volunteer to wheel the power you sell him to another utility, maybe at a price cheaper than for the power he wants to sell to that other utility himself? The place where FERC can really lead the charge is in transmission, rather than in trying to tell the states how to encourage competition in generation, where they are attempting to lead a band that is already well out in front of FERC.

Ohio Commissioner Ashley Brown agrees that if the FERC wants to look at deregulation initiatives then transmission is the logical place to start. Brown has stated:

> I can't imagine how we can have a workably competitive market for bidding generation in the absence of determining who will have access to the grid, either as an end user or as a supplier. It just boggles the imagination to think that that issue doesn't have to be addressed to create a workably competitive market.

This theme was widely echoed by many who participated in the Congressional oversight hearings conducted by the House Energy and Commerce Subcommittee on Energy and Power on September 10th, 22nd and 23rd of last year. For example, in their testimony before the Congressional Subcommittee, the American Paper Institute (API) and the Electricity Consumers Resource Council (ELCON) reiterated their call for wheeling provisions. A bidding proposal that ignores wheeling "will be fatally flawed" said Dow Chemical U.S.A.'s John Stauffacher speaking for ELCON. API's Peter Chamberlain added, transmission access is the key to competition and "should be the primary focus of FERC and the Congress."

Interestingly, Commissioner Stalon in his written filed testimony at the September hearing agreed. At page 27, Commissioner Stalon stated:

> A truth that must be recognized, . . . is that a workably competitive generating market among gencos can only approximate desired levels of economic efficiency if, at a minimum, all gencos have a right of transmission access to a multiplicity of potential buyers. Failure to provide such access will lead to gencos facing monopsony power which will increase genco risk and, therefore, genco costs. Such failures will also limit regional specialization and encourage plant sitings at multiple utility boundaries to reduce buyer monopsony power rather than at economically efficient sites. Hence, I view a greater level of supplier access than we have at present as critical to the development of efficient bulk power markets.

Moreover, on page 34 of his testimony, Commissioner Stalon recognized the linkage that is possible between bidding and transmission access when he stated:

> I believe the FERC could create an option for state commissions implementing bidding systems to condition participation in a bidding scheme upon the aspirant participant's not using its monopoly over transmission facilities to deny access to the bid market to another potential bidder.

Commissioner Naeve in a November 18, 1987, speech before the National Association of Regulatory Utility Commissioners stated as follows:

> I would agree with Ashley [Brown] and others that the Commission should not allow the transmission question to be sidetracked by the current proposals. But I do not view the transmission and generation initiatives as being mutually exclusive. The Commission has the resources and knowledge to simultaneously move ahead on both matters.

Even some supporters of Chairman Hesse's Electric Strategy have serious doubts. For example, a group of 14 investor owned utilites have stated general support of Chairman Hesse's Electric Strategy, in various degrees. However, even within this group, members have serious reservations. For example, San Diego Gas & Electric Company's General Counsel, in an October 15, 1987 speech, stated as follows:

> Chairman Hesse, however, proposes to implement all-source competitive bidding before considering transmission issues. I can appreciate her argument that FERC cannot consider all issues at once and must therefore move incrementally, but utilities can hardly be expected to support or acquiesce in efforts to de-integrate generation from transmission and distribution when the FERC's position on transmission on behalf of end-users remains entirely unstated. The linkage between these issues is obvious and fundamental. The transmission issue should therefore be considered concurrently with Hesse's other reform proposals, with the exception of PURPA clean-up issues which should go forward independently. Fred Kahn has warned us to beware the "tyranny of small decisions". Resolving competitive bidding before addressing the transmission issue would invite just such a tyranny.

Candidly and very unfortunately, I have no reason to believe at this time that the Commission will address transmission regulation in any form in the near term, or for that matter, at any predictable time in the foreseeable future.

Before discussing my own views on transmission regulation, I want to emphasize, as emphatically as possible, that I am not expressing here support for or opposition to any specific transmission access proposal. My recommendation originally was that the Commission confine its PURPA action to refinement of the traditional PURPA program, including the issue of competitive bidding for QFs, and then separately move immediately to address Federal transmission regulation on a generic basis. That still is my strongly held position, because that is the area of our legitimate jurisdiction, in addition to bulk power market regulation, where we can achieve real, as opposed to theoretical improvements in economic efficiency.

I believe this position makes sense for the following reasons.

It is fortuitous that a series of initiatives for improving transmission regulation are moving forward at this time. The National Governor's Association completed a report last year dealing with transmission capacity issues. The National Regulatory Research Institute (NRRI) completed two major reports last summer dealing with various economical factors and non-technical impediments to transmission. The Electric Power Research Institute and the Congressional Office of Technology Assessment (OTA) are currently working on reports that should be out in 1988 dealing with various technical and operational problems surrounding transmission. And, of course, there's the 1985 Notice of Inquiry by the FERC which deals directly with FERC's transmission responsibilities. As I stated earlier, to this day the Commission has not received a staff analysis of the comments even though Commissioner Stalon and myself, among others, have repeatedly asked for one.

One very important transmission issue which may flow from any objective analysis of transmission regulation is the issue of providing additional incentives for needed transmission construction, particularly in so-called bottleneck situations, and the highly controversial question of whether there should be a Federal role in the siting of critically needed major multistate transmission facilities. The Governors, of course, adamantly oppose such a direct Federal role in their report of last year. At the same time, however, there is mounting evidence of a Federal interstate, as well as a multistate interest, in the siting issue because of regional supply and reliability considerations. Consequently, there may be an opportunity in any review of current Federal transmission policy to consider how that regulation could be modified to create a more favorable economic and regulatory climate for new commitments for the construction of additional transmission capacity. I offer that only as an example of the type of issue now lingering and largely adrift because of the Commission's current total focus on the ASCB and IPP initiatives.

In my view, there also has been a lot of double talk about transmission regulation. One very important, perhaps critical issue, which is conveniently overlooked by many enthusiasts of industry restructuring and administrative deregulation through all-source competitive bidding, is Federal law. When talking about Federal law, I am talking in terms of the Federal Power Act (FPA) and its two key provisions: first, rates must be just and reasonable, and second, rates must be determined in a non-discriminatory and non-preferential manner in the context of the statutory prohibition against undue discrimination or preference. Also, there arguably is a prohibition on discrimination that may be found applicable to section 210 of PURPA.

At the outset of this discussion, I want to reiterate that I am not expressing here support for or opposition to any specific transmission access proposal. Today, my focus is decidedly not on my preferred position on the access issue. Rather, my focus is on the probable legal requirement for mandatory transmission access flowing from a decision by the Commission to adopt and impose nationwide all-source competitive bidding.

Consequently, I think it is time now for some straight talk on that key legal issue. In that regard, the "colorful" experience of the Commission in the natural gas area is most instructive.

Let's start with "just and reasonable" rates (J&R). The Department of Energy, in its April 30, 1987, comments filed in the Commission's PURPA docket, highlighted this question: Is there a legal basis to determine the price resulting from an auction market as a "just and reasonable" rate under the structure of the FPA? That is always a challenging and difficult issue. At its October 28, 1987, meeting in the Natural Gas Pipeline Company of America proceeding, Docket Nos. RP87-141, et al., the Commission debated this question for four hours in the context of a pipeline proposal for a gas inventory charge -- a proposal which the Commission itself had encouraged in our recent Order 500. We have continued that debate privately in the months since that decision was issued in that and several related cases. There, as I believe with all-source competitive bidding, the question was whether and how to legally substitute reliance on market forces for traditional cost based regulation to meet the J&R requirement. The debate on October 28th turned on how to reach the conclusion that the gas markets at the city gates of that pipeline service area were, in fact, sufficiently competitive. The Commission economists in that debate captured the field at the staff level and fashioned a new test for the adequacy of market forces and competition based loosely on the economic concept of "contestable markets." All of this involves the careful interpretation of a series of cases, primarily in the D.C. Circuit and the U.S. Supreme Court, which have set rigid standards for the substitution of market forces for traditional cost-based regulation. A leading case is Farmers Union Central Exchange v. FERC, 734 F.2d 1486 (D.C. Cir. 1984) -- a 1984 case which struck down oil pipeline administrative deregulation by the Commission.

Let me quote the October 30, 1987, Commission order in Natural Gas Pipeline Company of America:

> In theory, if the markets are competitive, Natural should not be able to charge monopoly rates to its customers for the sales service. The market, then, should keep the rate in the just and reasonable range. However, for the markets to be relied upon, the customers would have to be able to arrange reasonable substitutes for their requirements of the same quality of service as provided by Natural. The customers so far have not had much experience in arranging alternative firm supplies at these levels. The Commission does not have any actual experience to rely upon to determine if competitive market forces can be established to exist and to keep the rates in the just and reasonable range for Natural's service.

(Slip op. at 12.) The key point here is that the Commission has been forced repeatedly to demonstrate that the market forces and competition substituting for traditional cost based regulation are real and effective. As the D.C. Circuit stated in Electric Consumers Resource Council v. FERC, 747 F.2d 1511 (1984): "mere reliance on economic theory cannot substitute for the articulation of a rational basis for an agency's decision." As the Chief Judge's opinion in Farmers Union emphasized, there must be "demonstrable" competition.

Similarly, the undue discrimination provisions of the Federal Power Act must be considered. The analysis of the American Iron and Steel Institute, the legal memoranda of ELCON and several others, the proposals of APPA and the House Subcommittee testimony of Commissioner Stalon all focus on the discrimination and preference legal issue. For example, Commissioner Stalon in his testimony, which was endorsed and figuratively embraced by Chairman Hesse at the hearing as the intellectual support for her proposal, called for transmission access as an option for state commissions conducting bidding systems. He suggested use of conditioning power and anti-discrimination portions of PURPA section 210. Others have focused quite specifically on the D.C. Circuit Court's opinion in the recent Associated Gas Distributors v. FERC, 824 F.2d 981 (D.C. Cir. 1987) case issued in June. Certainly, the discrimination issue was the "legal can opener" in that case by which the Commission moved forcefully to open up transmission access in the interstate pipeline system.

Well, what does all this legal gobbledygook really mean and what is the bottom line for this discussion? If, and I emphasize if, the Commission adopts the all-source competitive bidding and IPP proposals -- however phased or broken into several parts -- Federal law could probably dictate some form of transmission access. For example, the Commission's recent decision in the Florida Power and Light case (40 FERC ¶ 61,045 (July 20, 1987), reh'g. denied, 41 FERC ¶ 61,153 (Nov. 5, 1987)) where the Commission denied the State Commission in Florida any authority to control retail wheeling, may have to be modified. Potentially, the states might be able to directly order wheeling to ensure workable competition at the wholesale or the retail level with the new ASCB authority delegated by the Commission under PURPA or pursuant to the Federal Power Act with a state certified transmission requirement under the all-source competitive bidding proposal. If the market must be "workably competitive" to supplant cost based Federal regulation under the J&R standard or to satisfy Federal statutory prohibitions on undue discrimination or preference, how can Florida Power and Light stand in the end if the ASCB proposal has been implemented in the state? Similarly, in approving the Western Systems Power Pool proposal, the Commission rejected transmission access as part of the relatively short term experiment. If the Commission authorizes a fully competitive process in those states in lieu of traditional rate regulation, can this decision stick? If the new generation market must be "workably competitive" to satisfy the PURPA avoided cost standard, the Federal Power Act just and reasonable standard, and the Federal Power Act prohibitions on undue discrimination and preference, how can the Commission reject Commissioner Stalon's proposal or the analysis of the several industrial and public power organizations? The point is plain and simple -- as the Commission was again reminded for four hours in public session only recently at its October 28th meeting, _if_ the Commission decides to substitute reliance on market forces and competition for traditional regulation, _if_ the Commission must legally demonstrate the existence of "workably competitive" markets, _if_ the Commission provides an all-source competitive process for new generation, as the pending proposal would ultimately attempt to do, _then_ Federal law probably could require the necessary transmission access (potentially both wholesale and retail) to ensure that there will, in fact, be workably competitive markets. That, in my view, is the bottom line.

Reliability

Deregulation, even partial deregulation, certainly will have many negative impacts, including serious impacts on electric service reliability. Running a highly sophisticated interconnected bulk electric power system is very complex and the consequences of system operational difficulties and failure can be disastrous and widespread. These consequences may well be compounded by the fact that if utilities are operating in a competitive mode, there could be far less cooperation and communication among the utilities. If a utility experienced a shortfall of adequate generation or transmission capacity, this could lead to, among other things, voltage reductions which might be effective within several minutes and last for several hours, depending upon the equipment involved, the preparedness of the utility, and the competitive relations between the utility and its (utility) neighbors. This is why the point about the cooperative model versus the competitive model is often made (e.g. increased power pooling and increased regional cooperation may not be easily compatible with the competitive model).

Deregulation will also tend to introduce more uncertainty into the big picture as far as long term planning goes. In light of the above and the increasing tension between state and federal authority in the electric arena, the impacts must be carefully analyzed before attempting a series of ad hoc proposals, that are not comprehensive in nature but will cause at least a partial restructuring of the electric industry.

The IPP proposal contains a very curious and simplistic response to the reliability issue. In situations where an IPP defaults and the franchised utility's source of power is lost, the remedy advanced by the proposal is the reasonable purchase of replacement power that could be passed through to the purchasing utility's customers. Another suggested remedy contained in the proposal is to include safeguard provisions in power sales contracts that would turn the operations of the IPP plant over to the utility purchaser. Others have suggested that all that is required is contract enforcement in courts of law to ensure needed power is available. Such remedial measures clearly place far too much emphasis on legal and monetary solutions to complex technical problems that have serious ramifications for electric service reliability wholly independent of any such contract or financial considerations.

Consumer Impact

The pending proposals include brief discussions in the ASCB and IPP NOPRs offering largely unsupported conclusions that this competitive market-oriented approach for new electric supply, and implicitly the new genco-based electric supply sector, will provide increased economic efficiency, greater reliability, a more assured supply and lower costs to customers. I am not at all persuaded by this largely academic and theoretical discussion of general economic principles as to that result. In fact, I am seriously concerned that the end result of this new direction and restructuring of the electric power industry is highly unpredictable, particularly in light of the balkanized and discriminatory state-by-state (ASCB) approach found in the NOPRs. But to the extent its predictable at all, I would argue that there is a distinct probability that the result in the end will be higher prices, lower reliability, less assured supply and, yes, decreased economic efficiency. At this stage in the debate, it appears that the forgotten party in the Commission's analysis of the ASCB process and the IPP proposals is the American electric consumer.

I note that the Committee's witness list for these hearings includes several distinguished state utility commissioners and the Consumer Federation of America. The National Association of Regulatory Utility Commissioners, through its Electricity Committee, as well as individual state commissions, in the past have called attention to the potential consumer impacts of the pending proposals. I understand that the Consumer Federation of America has underway a study of the general concepts of the ASCB process and IPP proposals under the direction of Mr. Alex Radin, formerly Executive Director of the American Public Power Association. We will all be anxious to review the results of that study when it is completed, possibly later this month.

I would respectfully submit to the Committee that both the Commission and the Congress should have an acceptable level of confidence that the ASCB process and IPP proposals together will reach the positive result advertised in the NOPR, rather than the negative impact I fear is probable, before these proposals are finally adopted. As Secretary Herrington stated, change simply for the sake of change is unacceptable. The Congress, I would respectfully submit, should demand that the Commission be able to demonstrate persuasively that these proposals will, with reasonable certainty, be an improvement for American consumers. Our responsibility at the Commission, pursuant to the Congressional delegation of statutory authority in the Federal Power Act, is to provide American consumers an assured and reliable electric power supply at the lowest reasonable costs. We, however, were not commissioned to use this nation's interstate electric power system to test new economic theories and regulatory concepts on a generic basis, as if that system was the world's largest micro-economic model. Perhaps, it now is time for the Commission with your leadership to get back to the basics under the Federal Power Act, so to speak, and refocus it's attention on the American consumer, rather than the primacy of economic efficiency in theory, so as to provide that assured and reliable supply at lowest reasonable cost. In the end, I have absolutely no doubt that's what is best for America.

NOPR Procedures for Public Comment and Participation

The three NOPRs now pending before the Commission are not only significant for their extraordinary policy importance, as discussed in detail elsewhere in this testimony, they are also significant as to their size, complexity and highly interrelated nature. The NOPR on Independent Power Producers, which does not yet include an environmental assessment, contains 140 pages. The NOPR on bidding programs, which does not yet include the section by section analysis or the environmental assessment, contains 92 pages. The NOPR on Administrative Determination of Full Avoided Costs, Rates for Sales of Power to Qualifying Facilities, and Interconnection Facilities, which does not yet include an environmental assessment, contains 97 pages. Together, the three NOPR's may contain 400 pages or more of largely brand new preamble discussion, Federal regulatory text and supporting analysis. Currently, the NOPRs would provide a grand total of 60 days for public comment. I think that a 60 day comment period for the Avoided Cost NOPR would be adequate.

While some of the proposed new Federal regulation has been discussed in broad concept before, the NOPRs on the ASCB process and IPPs will constitute the first concrete proposal promulgated by the Commission to the general public and interested parties, including the United States Congress. I am very concerned about the need for full and complete review, analysis and public comment for the Commission's record, and subsequent consideration before a final rule on the ASCB process and IPPs is adopted. A very limited 60 day period for public comment under these circumstances would be patently absurd. Even though a 60 day comment period may minimally satisfy the requirement for informal rulemaking under the Administrative Procedures Act, there would be little realistic opportunity for interested parties to analyze thoroughly the effects, impacts, and ramifications of these completely new concepts.

Several groups have expressed serious concern about the eventual NOPR procedures. For example, the National Association of State Utility Consumer Advocates (NASUCA) at its Annual Meeting last November adopted a resolution (1987-15) addressing

Commission procedures for considering such proposals as administrative deregulation of Independent Power Producers. NASUCA called on the Commission to provide a 120 day comment period and to schedule regional public hearings before any final action. I'm sure this Committee would be very sympathetic to the position adopted by NASUCA, in light of its long and hallowed tradition of ensuring the full due process rights of all interested parties in Federal regulatory proceedings.

Given the broad scope and fundamental nature of the NOPRs in the area of Federal electric utility regulation -- and administrative deregulation -- it is clear that the Commission must take several procedural steps to provide a legitimate opportunity for all interested parties to review and analyze the ASCB and IPPs proposals, develop public comment and participate in the rulemaking proceedings. First, the Commission should provide an extended initial period for public comment of at least 90 to 120 days, as requested by NASUCA. Second, the Commission should provide an additional period of 30 to 45 days for reply briefs with cross comments on the initial filed comments. There is prior precedent for such a procedure in major informal rulemaking dockets. For example, such an opportunity for reply comments was adopted in the rulemaking proceedings on the pricing of old gas (Docket No. RM86-3) and served well to sharpen the Commission's record and analysis in the development of Order No. 451. Third, the Commission should conduct regional conferences or hearings on the ASCB and IPPs NOPRs after the filing of reply comments, as was originally done in the PURPA review public conferences in four cities last year and as requested by NASUCA. Fourth, the Commission should schedule public meetings pursuant to the Government in the Sunshine Act with appropriate state authorities, including but not necessarily limited to the the National Governor's Association, the National Association of Regulatory Utility Commissioners, and NASUCA.

By this testimony today, I would seek the support of this Committee for such a procedural approach to the Commission's thoroughly legislative initiatives in the NOPRs. Additionally, I would respectfully renew my prior plea for continued close review and scrutiny of the NOPR proposals in the future, possibly in the form of additional hearings on these issues after public comments have been filed, but before final action by the Commission. If the Commission is going to proceed with these NOPRs notwithstanding my opposition, then I submit that it is appropriate for all public officials, including the Congress, to ensure that the procedures provide a full opportunity for public comment, debate, and participation in the rulemaking proceeding.

The NOPRs and NEPA Requirements

The Commission's recently adopted regulations on implementation of the National Environmental Policy Act (NEPA) in the Commission's regulatory programs (41 FERC ¶ 61,284 (1987)) expressly require that Notices of Proposed Rulemaking must contain a draft Environmental Impact Statement (EIS) or an Environmental Assessment (EA) with a Finding of No Significant Impact (FONSI) (41 FERC at 56 of slip opinion). Where necessary, a NOPR may require an accompanying draft programmatic EIS pursuant to NEPA. The current NOPRs have been developed to date without any associated NEPA document. Recently, such work has been undertaken by the Oak Ridge National Laboratory under the direction of the Commission staff. I believe it is very important that the Commission have available a comprehensive and thorough analysis of the potential environmental consequences of the Independent Power Producer and Competitive Bidding NOPRs, although I do not believe that the avoided cost NOPR for the traditional PURPA program raises such issues and, as a result, should be issued promptly. Any such analysis would of necessity have to reflect and consider fully the highly interrelated nature of the ASCB and IPPs NOPRs and could not separately address the two NOPRs as if they were wholly independent and unrelated. If that form of environmental analysis can be accomplished in a legally sufficient way in an environmental assessment, that would certainly be acceptable.

Environmental reviews of proposed Federal action must be prepared to satisfy the NEPA requirement to ensure at each stage of the decisionmaking process that the Federal decisionmaker has a complete grasp of the environmental consequences potentially flowing from the proposed Federal action. I submit that the Commission is obligated to initiate such an effort and have the benefits of the results prior to any specific action. In no event, however, should the Commission proceed with action on these NOPRs without the benefit of the NEPA-required environmental analysis in a fully adequate and legally sufficient document before we act. I am confident that the Commission and my colleagues are committed to complete compliance with the statutory requirements of NEPA and our implementing regulations in the consideration of these NOPRs.

Conclusion

I want to conclude by reiterating the remarks of Secretary of Energy Herrington at last year's EEI Conference.

The Secretary called for "an active effort to build a broad-based bipartisan consensus for necessary reforms in electric power regulation." That effort "must be based on a careful and deliberate process [which] can yield workable answers that can benefit all affected constituencies... . The industry, consumers, and regulators must all be closely involved in any effort to set a new course for this industry. Maintaining the high standards of the past will require a careful and thoughtful policy in response to a rapidly changing environment... . If we all pull together, we will succeed and the American people will continue to enjoy an electric power infrastructure that is the model for the world." In the end, if we can satisfy those criteria articulated by Secretary Herrington, we will have met the pledge proposed last week by President Reagan to have kept foremost in our hearts and minds what is best for America.

ABSTRACT: Testimony of FERC Commissioner Charles G. Stalon

Subcommittee on Energy and Power, Committee on
Energy and Commerce, U.S. House of Representatives
Oversight Hearing on Cogeneration and PURPA, September 10, 1987

A. Introduction. 1. The primary objective of public utility regulation should be to maximize economic efficiency.

2. The fundamental issue facing policymakers is whether this objective can be better furthered by pursuing workably competitive markets in the generating sector of the industry, or by reforming existing regulation.

3. My conclusion is that, while both are necessary, the first choice should be the primary focus of FERC reform efforts. The economic environment of the industry has so changed as to render the existing regulatory system inefficient and difficult to reform effectively.

B. The Changed Economic Environment for Electricity. 1. Major macroeconomic changes -- higher real interest rates, intensifying business cycles and the growing interdependence of world economies -- that are irresistible and probably long-term, have revealed fundamental defects in the inherited structure and regulation of the industry.

2. The consequences of these and other forces have been rising generation costs, longer gestation periods and volatility of demands, rendering forecasting and supply planning very difficult.

3. Resultant disparities in available capacity and in generating costs have created large bulk power markets for arms-length trading of power. This may be a permanent and constructive phenomenon.

4. The major conclusion is that these changes have undermined the "natural monopoly" rationale for regulating generation. Moreover, the existing structure and regulatory system cannot respond efficiently to these economic forces.

5. If changes are not made, the system will remain vulnerable to pressures by requirements customers for bypass of their utilities and to increasing tension in state/federal regulatory relations.

C. Reform Priorities. 1. The FERC needs to move ahead with reform of PURPA and then of the major regulatory components of bulk power markets (i.e., coordination pricing, and transmission pricing and access) and of requirements regulation.

2. The concepts for PURPA reform outlined in Chairman Hesse's June speech are sound. There are major potential benefits in providing more realistic avenues to electricity markets for independent power producers. Well-designed "all source" bidding under PURPA would help. However, important implementation details need to be analyzed and addressed by the FERC before moving ahead.

3. Legislative amendments may be necessary to remove roadblocks to the reform process.

ATTACHMENT 2

Attachment to Commissioner Charles A. Trabandt's Testimony

ALL-SOURCE COMPETITIVE BIDDING (ASCB) PROCESS

Step 1 - State Public Utility Commission (PUC) decision to elect either (1) Traditional avoided cost for PURPA Qualifying Facilities (QF) pursuant to new rules in NOPR #1, or (2) ASCB pursuant to rules in NOPR #2.

Step 2 - If PUC elects ASCB, utility must file request for any new capacity adcquisition. Using a state public participation process, PUC must certify "need for power" to approve utility request. All utility capacity acquisition must be by ASCB process.

Step 3 - If PUC certifies need for power and approves utility request, the acquisition must be pursuant to ASCB rules.

a. Once ASCB triggered for that capacity, there can be no other acquisition effort outside ASCB, by negotiation or otherwise

b. Multistate utility acquisition would require ASCB process with all jurisdictional PUCs participating in a regional ASCB or separate FERC process.

Step 4 - PUC, utility and possibly other interested parties develop solicitation, including price and non-price terms. Participation specified by rule, with certain PUC discretion. Subsidized entities (public power, municipal waste-to-energy) could be barred. Utility, at discretion of PUC, either (1) barred or (2) participate subject to limitations as to self-dealing and other constraints, including embedded cost rates.

- Independent Power Producers (IPPs) could participate, with administrative deregulation pursuant to NOPR #3. Specifically, the ASCB bidded price, if selected, would be just and reasonable under Federl Power Act.
- Qf's would participate, but must be selected to get capacity and energy payment. If not selected, only get energy. Efficiency standards waived for oil and gas QFs, if selected.
- There can be no set asides for class of participant or otherwise, with limited exception possible.
- Conservation, load management, purchased power and possibly imports must be considered in some form as part of ASCB process. Direct competition preferred and encouraged.

Step 5 - Bids accepted, reviewed and selection made by utility, subject to PUC oversight. PUC must certify the selection process and the selected bid(s). Certification would constitute determination of least cost and prudent selection.

Step 6 - Utility and selected bidder(s) negotiate contract pursuant to solicitation specifications and selection requirements, subject to PUC oversight.

ATTACHMENT

FERC, IPPS, COMPETITIVE BIDDING, DEREGULATED GENERATION: DO WE KNOW WHERE WE ARE GOING? AND WHY?

Delivered by William D. Steinmeier, Chairman
Missouri Public Service Commission
To the Fourteenth Annual Rate Symposium on Pricing Electric,
Gas and Telecommunications Services

February 8, 1988
Kansas City Marriott Plaza
Kansas City, Missouri

In a news release dated September 25, 1987, the Federal Energy Regulatory Commission (FERC) announced that it would hold a technical conference on October 22 and 23 of 1987 on the role of Independent Power Producers (IPPs) in the electric utility market. "Independent power producer" was defined in the release as "a generating entity (other than a qualifying facility) that lacks significant market power and is independent of any local electric utility where the entity provides service." Then, on October 13, 1987, the Office of Economic Policy of the FERC issued a paper entitled: "Regulating Independent Power Producers: A Policy Analysis."

At the technical conference in October, a deadline for written comments was established. The September 25 news release posed a series of questions related to five topical areas designed to fully address the potential role of independent power producers in the electricity marketplace. A number of state regulatory commissions, investor-owned electric utilities, electric industry associations and other interested parties participated in the technical conference, and have filed written comments with the FERC in this informal docket.

The major issues sought to be addressed by the FERC were the following: (1) the need for new policies toward IPPs; (2) the identification and regulation of producers which lack market power; (3) rate regulation of IPPs (pricing mechanisms, role in a competitive bidding system, concerns about reliability and dispatchability); (4) appropriateness of allowing utility ownership of IPPs; and (5) the impact IPPs are likely to have on the division of jurisdictions between FERC and the State regulatory commissions.

The IPP initiative at the FERC is part of a broader plan being promoted by some at the United States Department of Energy and at the FERC to change the way the electric industry is regulated in this country. The "Keystone Group" dissolved after two years of seeking consensus on how to make the electric industry more efficient. While not reaching a final agreement, the group did hammer out a proposal to modify the Public Utility Regulatory Policies Act (PURPA) by eliminating size, technology and ownership restrictions on qualifying cogeneration and small power production facilities. (Inside F.E.R.C., August 10, 1987, p. 5). Under the Keystone Plan, generators would compete in a bidding process to provide new generation capacity.

This concept caught on quickly with FERC Chairman Martha Hesse. In a speech to the Edison Electric Institute in June, 1987, Chairman Hesse encouraged the development of an all-source competitive bidding system to assure the provision of least-cost, reliable electricity and as an alternative to administratively determining avoided costs under PURPA. ". . . [T]he key to a truly successful competitive acquisition program is to allow all players to compete fairly in the same arena and to have all potential sources of capacity taken into account," she stated. "If all possible sources of supply are included in the bidding process, the resulting price should converge on the true avoided cost. This would allow the marketplace to be substituted for the judgment of regulatory officials in determining avoided cost." (Speech of Chairman Martha O. Hesse, FERC, to the Edison Electric Institute, Cincinnati, Ohio, June 10, 1987). Chairman Hesse emphasized any bidding scheme that may be adopted would not be mandatory, but would be an option for the states to implement.

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In response to Chairman Hesse's speech, FERC Commissioner Charles A. Trabandt spoke to the Atomic Industrial Forum on July 21, 1987, and quoted from the Great American Philosopher, Casey Stengel, who is reported to have said, "If you don't know where you're going, you're liable to end up someplace else." Commissioner Trabandt expressed his concern that the FERC may have embarked "on a journey which is likely to take it, this nation's electric industry and the American electric consumer down a regulatory path that will indeed end up someplace else." Commissioner Trabandt expressed serious concerns about the procedural and substantive aspects of the electric regulatory policy and strategy which had taken shape at the Commission in response to the Keystone Plan and Chairman Hesse's EEI speech in June. Commissioner Trabandt told the Atomic Industrial Forum that any IPP generic policy action was clearly premature, in his view, either as a stand-alone initiative or as part of the broader Keystone-type policy initiative.

In September, 1987, Commissioner Charles G. Stalon of the Federal Energy Regulatory Commission provided an economic rationale for the FERC IPP initiative in testimony before the U.S. House Subcommittee on Energy and Power (under the Committee on Energy and Commerce) in an oversight hearing on cogeneration and PURPA. Commissioner Stalon told the Congressional Subcommittee that the primary objective of public utility regulation should be to maximize economic efficiency, a proposition with which no one could possibly disagree. He stated that the fundamental issue facing policymakers is whether this objective can be better furthered by pursuing workably competitive markets in the generating sector of the industry, or by reforming existing regulation. Commissioner Stalon concluded that, while both are necessary, the pursuit of workably competitive markets in the generating sector of the industry should be the primary focus of FERC reform efforts. He postulated that the economic environment of the industry has so changed as to render the existing regulatory system inefficient and difficult to reform effectively.

Commissioner Stalon alleged that major macroeconomic changes "have revealed fundamental defects in the inherited structure and regulation of the industry." He identified these major macroeconomic changes as higher real interest rates, intensifying business cycles and the growing interdependence of world economies, and stated his belief that these changes are irresistible and "probably permanent." The consequences of these and other forces have been rising generation costs, longer gestation periods and volatility of demands, rendering forecasting and supply planning very difficult. According to Commissioner Stalon, resultant disparities in available capacity and in generating costs have created large bulk power markets for arms-length trading of power. He states that this may be a permanent and constructive phenomenon.

Mr. Stalon's major conclusion is that these changes have undermined the "natural monopoly" rationale for regulating generation. Moreover, he concludes, the existing structure and regulatory system cannot respond efficiently to these economic forces. If changes are not made, he says, the system will remain vulnerable to pressures from requirements customers for bypass of their utility and to increasing tensions in state-federal regulatory relations.

In a speech to the National Association of Regulatory Utility Commissioners in New Orleans, Louisiana in November, 1987, Chairman Hesse reiterated her interest in a competitive bidding system to add more market orientation to the electricity pricing system in the United States. She summarized Commissioner Stalon's Congressional testimony for the economic rationale for this proposal. She also observed, among other things, that "prudency reviews" of generation construction costs "are part of a 1950's mentality" which will discourage the construction of capacity additions in the future.

The economic rationale put forth by Commissioner Stalon and Chairman Hesse of the FERC ultimately leads to a system of deregulated electric generation, which Commissioner Stalon has openly advocated.

The Missouri PSC continues to be open to constructive change in the structure of the electric industry and the manner in which it is regulated. We have clearly demonstrated our openness to change in the telecommunications industry, favoring less regulation of markets in which full and fair competition can flourish to the benefit of consumers and industry. However, we have urged and pursued a cautious but deliberate approach toward less regulation of telecommunications, and would do so concerning the electric industry as well. Deregulated generation would constitute a radical departure from the manner in which electric service has been provided to the citizens of the United States since very early in the twentieth century. The results of such a radical departure can only be theorized, not known. We oppose a headlong rush toward deregulation or less regulation or radical restructuring without a very clear sense of where we are headed and why.

With all due respect to my federal colleagues, the FERC's Independent Power Producers' initiative is, at best, premature. I do not find their economic conclusions pursuasive, I do find economic efficiency in the electric industry being promoted within the existing regulatory framework, and I am frustrated by the fact that the FERC is pursuing such a major restructuring of the electric industry in this nation while leaving a great deal of unfinished business which needs to be completed before we even start down this road.

More specifically, the major macroeconomic changes cited by Commissioner Stalon do not change the fact that the future supply of electricity will continue to be highly capital intensive. From the perspective of an investor in a generation plant, the key issue is not so much the operational efficiency of the plant as it is the efficient planning, construction and financing of the facility. What are the risks to the entrepreneur? If they invest in a large base load plant and ultimately find the market is in excess supply, they will have to take a lower than expected price for their product. Their rate of return will suffer because potential operational cost savings are minimal compared to the size of their investment. This leads one to wonder whether or not entrepreneurs would be willing to freely enter this industry, particularly if they are to operate on a highly competitive basis. While I am not an economist, I do know that the requirement of a large initial capital outlay is one of the barriers to entry that could result in a situation where competition, as a practical matter, will not exist.

It is not at all clear to the Missouri PSC that rising generating costs and longer gestation periods for additional electric capacity compel deregulation or would be improved by deregulation of generation. In fact, these phenomena may be mere aberrations related to the current generation of nuclear power plants, rather than real and long-term trends. If those factors are aberrations, then a radical restructuring of the industry would be a complete over-reaction with potentially deleterious long-term consequences.

Economic efficiency in the electric industry is already, and increasingly, being promoted. Economic efficiency is promoted by some real market pressure which already exists by virtue of actual and threatened competition to electric utilities. Under our existing system, this competition exists in the form of cogeneration and small power production, as well as self-generation by industrial customers. The desire of certain military installations and other government agencies in the last several years to shop around for more economic power sources has put pressure on the industry to achieve more efficiency. The ability of consumers to avoid electricity costs by implementation of conservation and load management measures has put pressure on the electric industry to perform more efficiently.

In addition, state regulators have applied a great deal of pressure to the electric industry to minimize costs. Prudency disallowances, excess capacity disallowances and risk-sharing measures have been utilized by state regulators to encourage efficiency and discourage inefficiency. Proactive least-cost planning procedures have been implemented with success in Wisconsin and elsewhere. Construction cost audit procedures for use during construction, rather than after, are being discussed and developed. Sophisticated computerized audit models have been developed to assess whether utilities are utilizing the most economical generating resources available to safely and reliably meet the anticipated load at any point in time. Plant outages are investigated and reliability and maintenance planning and execution are continually reviewed. Geographical differences in production costs are studied to learn their institutional and technical causes. Power pooling arrangements, including the Western System's Power Pool experiment, are being developed and tried on for size to make the lowest cost power available to all members of the Pool at any given point in time. Central dispatching models are being used experimentally to help make inter-utility power transactions more efficient. Systematic inclusion in capacity planning procedures of cogeneration and small power production availability, and of demand-side options including load management and conservation, will also increase economic efficiency of electric utilities through the existing regulatory system.

A word about prudency disallowances. While I hear complaints that some sort of "social compact" is breached whenever a state regulator doesn't allow a utility company to pass through every dollar spent by that utility, no matter how frivolously, I think we all know better than that. There has never been a social compact between the state and investor-owned utility companies which said that a utility company was free not to plan, not to manage efficiently, was free to build as much generating power as it ever dreamt of at whatever cost, and have every dollar so spent passed through to ratepayers, no questions asked. That might be the result of a system of unregulated monopoly, but it has never been the understanding between regulators and investor-owned utility companies.

We in Missouri have been very careful to exercise, with restraint and caution, our obligation to assure that utilities plan for the future intelligently, construct well and wisely, and manage efficiently the construction of new plants. We do not understand that the only message electric utilities can receive from prudency reviews and imprudence disallowances of construction costs from rate base is never to build additional generating capacity. The Missouri Commission made prudency disallowances on the Callaway and Wolf Creek nuclear power plants based upon an extensive and excellent analysis by a highly qualified expert witness with considerable nuclear energy and construction experience. Since the FERC adopted the majority of the Missouri PSC's disallowances in its own Union Electric wholesale rate proceeding, I assume the FERC acknowledges that the Missouri PSC's analysis did not rely on the exercise of inappropriate hindsight. Not only have Union Electric and Kansas City Power & Light not folded up and gone bankrupt, but they have done very well. And the economy as a whole has benefitted from not requiring consumers, including industries and commercial enterprises, to pay for unnecessary costs which resulted from inadequate management controls.

It is clear to me that reasonable prudency disallowances are an important part of sound regulation. They send the message to electric utilities that they are accountable for poor planning and mismanagement. The result will be better planning and better management of future construction projects. There will be another generation of electric plants built by electric utilities, and they will be more efficient plants and will be constructed more efficiently, in large part because state regulatory agencies did not accept the proposition that it was alright for every utility to design its own nuclear power plant from scratch and build it at whatever cost happened to fall out, regardless of management efficiency.

In addition, it is interesting to me that utility executives are increasingly willing to privately acknowledge that their prices would be excessive if every dollar they had managed to spend on nuclear power plants were, in fact, included in rates. Careful review of generating costs, and careful assurance that state-of-the-art planning methodologies are being utilized by utility companies, are ways in which traditional regulation is increasingly assuring the economic efficiency of the electricity industry. In fact, I wish the FERC would undertake a prudency review of the construction costs of the Grand Gulf nuclear power plants in Mississippi, which continue to impose heavy costs on some Missouri ratepayers as well as on the entire state of Arkansas.

I will freely admit to you that I speak to prudency reviews from my personal experience on the Missouri Public Service Commission. Our construction prudency reviews were very carefully planned and implemented. They looked at cost item by cost item, at the manhours expended on each phase of the project, as well as at the timing and scheduling of phases of the project. We did not pick some arbitrary price cap or percentage for exclusion. Even if the prudency disallowances adopted by some state commissions have been arbitrary, that fact should not require the entire industry and regulatory system to be undone. That is a reparable defect in the existing system. The fact that one state commission goes overboard should not become a rationalization for major restructuring of the industry.

It is not at all clear to me that the deregulation of generation, or all-source competitive bidding, would be more economically efficient than the continued regulation of electricity markets.

In addition, deregulation of generation and/or all-source competitive bidding render forecasting and supply planning more difficult. This problem is being addressed by the utilities in relation to PURPA cogeneration, of course. But, it is clearly easier for a utility company to plan for supply which it constructs than to plan for supply to be constructed by someone else.

Not only is planning affected by a deregulated system, but also reliability. I entertain very serious and fundamental concerns about whether and how an adequate supply of reliable electric power can be assured under a system of all-source competitive bidding or deregulated generation. Can electric utilities assure the long-term provision of power which is not their own? To suggest that such concerns can be adequately addressed through pricing, and such measures as performance bonds, as suggested by the FERC staff policy paper on IPPs, almost begs the question. American industry needs power, not performance bonds. The potential for collecting on a series of performance bonds if independent power producers fail to deliver will do nothing to meet the nation's energy needs. The Missouri Commission believes that grave doubts exist as to the ability of electric utilities to meet their obligation to serve through potentially widely-dispersed generation sources not owned or operated by the utilities themselves.

There is another thing that concerns and, frankly, frustrates me about the current debate. The FERC already has before it a great deal of unfinished business. I speak not only of traditional cases within the FERC's jurisdiction, which take inordinately long periods of time to process. These include the establishment of wholesale electric rates, the establishment of interstate pipeline gas rates, and the approval of applications for new interstate pipeline construction (other than under the Order 436 expedited procedure). The Missouri PSC decided the Union Electric Callaway nuclear rate case in March, 1985, and ordered a phase-in that included six annual rate increases. During 1987, we tried a complaint case filed by our staff and the Missouri Public Counsel against UE, alleging that changed economic circumstances had lowered UE's capital costs, fuel prices and income tax obligations sufficiently to warrant an early termination of the Callaway phase-in. On December 21, 1987, we issued a Report and Order in that case terminating the Callaway rate phase-in three years early. On the same day, the FERC finally issued its order denying rehearing of its original Callaway wholesale rate case! Four FERC cases in which we have participated of late have taken from thirty (30) to fifty-four (54) months for FERC to process and decide. From two and one-half (2½) to four and one-half (4½) years!

But not only is the FERC being distracted from its traditional caseload by this premature IPP debate, it is also being distracted from other dockets which have been open for a long period of time, which are logical prior steps to an IPP debate. These issues include transmission access and pricing. There are enormous engineering obstacles to open access to electricity transmission. Utilities constructed most of the present transmission system to economically and reliably supply their own load from their own plants. Large parts of the system are poorly adapted to routine transmission of energy from distant points. The success of power pools in meeting emergencies is a tribute to their careful advance planning but should not be used to construe the existence of a transmission system that is adapted to the routine transportation of large amounts of economic product for whomever might wish to connect to it, like the interstate highway system. The engineering changes that would have to be undertaken to introduce an open access transmission system in this country, and the costs of those changes, have yet to be comprehensively studied. There are also innumerable non-technical obstacles to transmission access, and we have not really begun to try to ascertain whether it is even possible to meaningfully price open access electric transmission.

In addition, in early 1987 the FERC undertook a review of Section 210 of PURPA, and held four public hearings around the country to take testimony on the question of whether the PURPA pricing mechanism for cogeneration and small power production should be modified. We participated in that proceeding, as did many of you. A year later, we continue to await the word from Washington. We continue to await the long-talked-of FERC review of bulk power sales. And, on that score, we await a report on the Western ~~States~~ Systems Power Pool's (WSPP) experiment. In September of 1986, fourteen Western utilities joined to form the Western States Power Pool. This joint regional utility arrangement established electronic communications between each member utility for the purposes of displaying buy and sell quotes for power and transmission services. It was felt that by coordinating day-to-day operations, this new power pool would allow each member to more efficiently utilize its generation and transmission facilities. The computerized, market-based pricing system, which extends from Oregon to Texas with its hub in Phoenix, was originally scheduled to commence operation on February 1, 1987.

However, in late January FERC found certain aspects of WSPP's application to be deficient. FERC felt that the pool's application did not provide for adequate access to the transmission system and did not provide adequate guarantees of fair pricing. At about the same time, the American Public Power Association (APPA) intervened in the FERC docket, voicing similar concerns with the application. The APPA filing appeared to be based on the concern that the WSPP would not encompass all of the association's members and would not provide open access to the transmission service with reasonable guarantees of fair pricing. All of these concerns added to the delay in the start-up of this bulk power experiment.

The experiment finally began on May 1, 1987, and at that time was scheduled to last for a period of two years. However, FERC subsequently rejected the consulting firm WSPP picked to collect, analyze and report on the Pool's operation. With this rejection, the project completion date is likely to be pushed back even further. FERC reportedly rejected the firm because it felt the firm possessed an engineering bias and lacked the necessary economic expertise to perform the desired data analysis. In its response to FERC's August 13 order rejecting its original choice of firms, WSPP agreed to issue a new Request-for-Proposal and supply the new proposals to FERC within 90 days. Sources at FERC have recently indicated that a WSPP consultant has been approved and that the experiment is proceeding.

It is interesting to note that this project is considered especially important by the FERC, since it is intended to provide FERC with "real-world information on ways to promote our (the FERC's) underlying goals. . ., including efficiency, competition and coordination in electric markets." (Electric Utility Week, August 24, 1987, page 13, "FERC Rejects Western Power Pool Consultant Proposal; Consultant Objects"). However, the FERC has neither appeared anxious to move the project, nor interested in waiting for its results before proceeding into the IPP initiative.

Numerous other technical and non-technical concerns are raised by the IPP proposal. Among these concerns are those that were raised by the Missouri PSC in its comments filed in the FERC IPP docket referenced at the beginning of my speech. The following provides a flavorful sampling of the complex, unanswered questions still ahead of us:

- Will the existence of IPPs simply shift regulatory emphasis from the issue of the prudency of a utility's management of construction to the (perhaps) no less complex issue of the prudency of its purchasing practices?
- Will the only real effect of a deregulated wholesale market be to shift costs from the interstate to the intrastate jurisdiction?
- By allowing IPPs unrestricted price competition and entry into the market, will regulated utilities be unfairly saddled with a continuing obligation to serve?
- Can IPPs actually be depended upon to provide an alternative reliable source of electric generation?

- Will the Public Utility Holding Company Act (PUHCA) impede the development of IPPs?
- How will purchasing utilities be assured of sufficient flexibility to consider all factors relevant to making prudent decisions?
- How are the multitudinous technical and institutional problems raised by the integration and dispatch of electricity generated by IPPs to be addressed?
- Will the joint venture between a regulated local utility and an IPP present insurmountable conflicts which arise from the operation of a generating plant for the benefit of the competitive market rather than to meet the needs of the retail utility?
- And, how will the influx of IPPs into the market increase the potential for FERC/state jurisdictional disputes?

The concern of state regulators about the FERC IPP initiative was well summarized by Commissioner Stanley W. Hulett, President of the California Public Utilities Commission, in testimony before the United States House Subcommittee on Energy and Power on September 22, 1987. Commissioner Hulett said, *inter alia*:

> However, I think that there is a sound reason for the caution that many of my colleagues at state commissions have expressed when considering the FERC proposals. While the details of these proposals are not yet known, the information we have suggests that the wrong questions are being asked. I think that the FERC staff is getting ahead of itself - they have not sufficiently explored, at least in a public forum, what the best structure of the electric industry might be, yet they are beginning to develop ideas which will *de facto* define the future structure of the electric utility industry. Before addressing specific ideas, such as independent power producers and all-source bidding, which will push the industry in a certain direction, Congress, FERC and state regulators need to discuss what the best direction is, and only then can we discuss how to get there.

Commissioner Hulett ended his testimony as follows:

> In conclusion, FERC should nurture state programs and their evolution, much like the original PURPA law and regulations have already done. States can experiment with new and different

> ideas, and are the ideal testing grounds for ideas such as the FERC proposals described earlier. Allowing states to experiment and innovate can provide benefits through new ideas while at the same time avoiding the risks that a uniform nationwide experiment might involve.

The Edison Electric Institute has also urged caution, endorsing what it describes as "an evolutionary approach consisting of positive, progressive steps which could ultimately lead to a much more flexible environment for the supply of electric generation. . . . Allowing some experimentation, while retaining important regulatory mechanisms to protect consumers until additional experience is gained, is the most rational way to pursue consideration of the IPP option." (Comments of Edison Electric Institute before the Federal Energy Regulatory Commission, Technical Conference on Independent Power Producers, Docket No. EL87-67-000, November 20, 1987).

I agree with Commissioner Charles Trabandt of the FERC that there is no apparent crisis in the electric industry which needs a fast-track solution. I agree with him that Casey Stengel's quote is accurate, and since we don't know where we are going in this IPP initiative, we are liable "to end up someplace else," someplace we wish we hadn't gone.

Finally, after having discussed all of this, let me end with what, perhaps, should have been the very first question asked: Should an administrative agency undertake, on its own initiative, such a fundamental restructuring of an essential industry without a congressional directive? I think not. If electric generation, which has been regulated under a federal-state system of economic regulation for at least 75 years, is to be deregulated or fundamentally restructured, that is a policy decision which should be made by the Congress of the United States. In addition, such a restructuring should be pursued with great caution and deliberation, not in the excessively hasty manner in which this new IPP initiative has been injected into the debate.

While competition may be preferable to regulation in any market in which full and fair competition can clearly flourish, any movement toward dismantling the current system of regulation should be slow and deliberate, and should flow out of the results of other, prior steps as yet not completed. It is imperative that we assure that a fundamental change in the structure of this industry is based on sound and thoughtful public policy debate, and not ideological agenda.

Thank you very much.

ELECTRIC UTILITY PROSPECTS IN A COMPETITIVE ENVIRONMENT

1988 RATE SYMPOSIUM

PRICING ELECTRIC GAS AND TELECOMMUNICATIONS SERVICES

KANSAS CITY, MISSOURI

FEBRUARY 8, 1988

Daniel L. Kaufer

Standard & Poor's Corp.

At Standard & Poor's, we evaluate the risk faced by electric utility bondholders. Overall, we feel that risk has been increasing for some time, and is likely to continue in that direction for the foreseeable future. One of the primary reasons is the escalating competition in the industry. Responses to this competition by utilities, regulators and customers will, obviously, have a significant impact on utility risks. In a nutshell, increasing competition means more business risk. And, to leave bondholders indifferent, utilities will have to decrease the financial risk. The alternative, of course, is lower bond ratings and higher interest costs.

With the completion of most of the large construction programs throughout the electric utility industry, a new challenge is beginning to emerge. That challenge is increased competition. This shift in direction toward increasing competition is, perhaps, partly due to social changes that indicate a desire for less regulation than in the past. To a degree it is also made possible by technological changes that have eliminated most of the economies of scale that once were associated with large base load electric generation. The primary impetus, however, is the skyrocketing electricity prices resulting from completion of this long and expensive construction cycle.

Regulators, who generally try to balance the interests of ratepayers and shareholders, frequently feel compelled to protect consumers from the often sizeable cost increases associated with new base load plants. Possibly due to pressure from those who refuse to pay for large, expensive, new nuclear plants, we are witnessing the breakdown of the regulatory compact. The limited need for new utility capital due to the existance of excess generating capacity, and supply alternatives from cogen, self-gen and independent power producers give regulators the freedom to escape this historical bargain. Regulatory commissions are beginning to emphasize competition as an important mechanism to protect consumers while, theoretically, offering utilities an opportunity to recover their costs and earn a return. The stated regulatory objective of competition is to spur greater efficiencies and cost containment in both operations and construction. Ideally, costs will be minimized and ratepayers will benefit and the deserving utilities will have an opportunity to earn unregulated profits. It is possible, however, that these untested theories will not be implemented in a balanced fashion and, thus, may serve neither the ratepayer nor the utility as intended.

The result is the monopoly/competition contradiction. While a regulated monopoly has limited profit opportunities it supposedly also has limited downside risk. In a truly competitive environment, both the upside and downside are unlimited. It is S&P's expectation that the industry will likely always be at least partially regulated. With a quasi-regulated electric industry, the downside protection could be removed but the upside constraints, although lessened, would probably not be entirely eliminated. It is unlikely that regulators will allow sufficiently high earnings opportunities to completely compensate for the increased operating and financial risks. Competition as a substitute for monopoly very simply translates into greater business risk. For an obvious example, look at what has happened to the airline industry. Electric utilities operating in a competitive marketplace will, therefore, impose additional risks on their securities' holders.

As the industry becomes more competitive, responses by state and federal regulators will have major implications for the utilities' ability to compete. In some instances, regulators will help the utilities adjust to the problems resulting from competition; in others, regulators will try to fix problems resulting from earlier regulatory decisions, and occasionally a regulatory action will force a utility into a position where it will have difficulty competing effectively.

California, as one of the most active states in the regulatory arena, provides some examples of how regulators will become involved in this process. In the 1970's with rapidly escalating prices, the PUC shifted a portion of the costs away from residential ratepayers (i.e. the voters) to the industrial sector. Over time, of course, the industrial customers voted with their feet and found cheaper supplies. Now the California PUC is repairing the damage by adjusting prices to reflect marginal costs. A more difficult and still unsolved problem, however, is what to do with the excess costs resulting from the QF purchases mandated by the PUC when it looked as though fuel prices were going to escalate to infinity. Since the California IOU's already face competitive pressures due to high rates, they will have difficulty passing on all the costs of QF purchases, without putting additional sales at risk. And an even worse situation confronts Gulf States Utilities as it tries to remain viable and keep some of its industrial load after the Louisiana PUC allocated the most recent (albeit small) rate increase primarily to industrial customers, many of whom can easily switch to self-generation.

At S&P we have published a set of financial benchmarks for the electric utility industry which we feel reflects the appropriate level of financial protection necessary for various debt ratings. In 1985 we revised these benchmarks to reflect rising business risks in the industry. Significant additional risk resulting from greatly increased competitive forces could cause us to tighten our benchmarks again. As a simple illustration, consider the packaged food industry which is mature and stable but, nevertheless, it is a competitive industry. For example, Hershey Foods, with an 'A+' senior debt rating has, over the past three years, had average coverages of almost 20 times and total debt of 22%. By comparison, a utility would require coverages of only 3.5 times and total debt of 46% to maintain a high 'A' rating. While other factors are obviously considered in the rating process, the leverage and coverage differentials demonstrate the greater statistical protection required by bondholders in a competitive industry.

Over the next few years, it is our best guess that the primary sources of competition that will have the greatest impact on electric utilities are: supply side alternatives, primarily cogeneration, small and independent power production, and potential deregulation in the electric utility industry itself.

Cogeneratörs and small power producers are likely to be significant suppliers of electricity in the future. Theoretically, they will enable many utilities to escape or lessen the financial burden of the next construction cycle. The potential benefits of avoided cost pricing to qualifying facilities pursuant to PURPA, even without the accelerated depreciation and other tax incentives that played such an important role in the past, have increased entrepreneurial interest in formerly secure markets for investor owned utilities. In Texas, with so much petrochemical activity in the Gulf coast area as a base, almost 10% of the state's capacity is now provided by cogenerators. In California, with the substantial profit opportunities that were available under the old Standard Offer #4, large amounts of uneconomic power are now available. Sizeable interest has also been expressed in New England, where power-starved utilities are expected to pay people to burn just about anything from wood chips to garbage if electricity can be generated.

Now the availability and development of PURPA facilities will likely provide some financial benefits to utilities. The purchasing utilities should have an opportunity to enhance resource capabilities without encountering the risk of long lead time construction projects. Multiple smaller cogen units present less financial risk and asset concentration exposure than does a single large base load generating unit. Thus cogenerators can provide the utility with an opportunity to strengthen financial performance by deferring the need for base load capacity while eliminating much of the accompanying uncertainty of cost recovery.

There are, however, inherent competitive risks in allowing new entrants into the marketplace. The loss of major industrial customers through self-generation or sales bypass by small power producers combined with purchase power obligations could lead to substantially reduced earnings. The loss of load alone could cause electric rates to increase to remaining customers, as fixed costs need to be spread more narrowly. Rates, also, could rise if avoided costs exceed embedded costs. Although PURPA requires the utility to purchase power from QFs and state regulators to determine the avoided cost pricing methodology, the ultimate recovery of potentially higher costs from retail customers may not be automatic or timely. Particularly since the purpose of competition is to help moderate electric costs.

Bondholder protection could be compromised if electric sales lose market share to competition. Without sales growth potential, financial improvement becomes more dependent on rate relief. To a company that already is a high cost producer, further price increases could lead to additional loss of load. Where utilities are unable to sufficiently recover these deficiencies from remaining customers, overall financial condition could be depressed. Lower sales and revenues, together with unrecovered purchased power costs would eventually affect most key measures of credit quality, and result in reduced bondholder protection. Internal cash flow could also reflect the depressed profits, and less retained earnings could increase external funding pressures. In the worst case scenario, the proverbial "death spiral", lost sales exceed the potential revenue increases from raising rates, leading to a need for even higher rates to recover fixed costs, resulting in more lost sales, and on and on. Gulf States current situation is not far different from this scenario.

The gap between costs and revenues could be exacerbated if utilities are forced to displace low cost installed generation with higher cost QF power due to transmission or other technical constraints. An extreme example would be if the IOUs in California could no longer import comparatively cheap hydropower from the Pacific Northwest because transmission lines were cluttered with substantially more expensive cogeneration. Additional risk could be faced by the utility that depends on cogenerated power to satisfy its base load requirements. Utilities might not be able to control the costs or the reliability of the electricity, but are almost certain to be held accountable by customers and regulators if problems develop. And ultimately cogenerators are not faced with the obligation to serve as are regulated utilities. When the economics of cogen go away, so might the electricity. When gas prices rise significantly some cogen may prove to be about as viable as the investment tax credit.

Deregulation is also expected to open a financial Pandora's box. There are numerous deregulation scenarios being postulated by regulators, legislators, economists and investors, all designed to spur greater cost efficiencies or to develop profit opportunities. Still attracting a lot of attention is Alamito, now a sub of Catalyst Energy, itself currently the object of a takeover attempt. Last year there was the rumored attempt at a LBO of Public Service of Indiana. And this year, NBCO Enterprises was put in play because of its real estate holdings. It is a fair bet that these new players, as well as other entrepreneurs (also called raiders), are not looking at electric utilities in order to make a good old-fashioned regulated rate of return.

The monopoly/competition contradiction is already evident when speaking of generation deregulation. In many states, notably, (but not exclusively) Montana, Pennsylvania, and Louisiana regulators have already denied full recovery of large base load generating plants. Regulatory decisions in these states have effectively deregulated portions of those investments by inventorying or disallowing them from rate base currently. Emergence of concepts such as "risk sharing" and "market based pricing" illustrate that utilities will experience greater regulatory risk in future years. The effective demise of cost of service regulation clearly and significantly increases business risk for the industry. While the utilities may not recover those investments through traditional cost recovery means, they are entitled to recoup some or all of the lost revenues through sales in the free market. While the expenditures were made when traditional rate of return recovery was expected, now parts or all of the investments are being disallowed from rate base because they are deemed "excess", "imprudent" or just too costly.

The external capital was raised under one set of rules, but the recovery and return must be achieved under a second, riskier, set of rules. Examples include Public Service of New Mexico's strategy to spin off much of its newer, high priced generation into a separate subsidiary which would have a very limited ability to recover its costs from retail ratepayers, but would be free to sell the rest of it to others. Too bad for the company's stakeholders that there is a glut of low priced power being marketed in that part of the country. Also, Commonwealth Edison had a plan, perhaps now fatally wounded, to spin-off three nuclear units into a federally regulated subsidiary rather than face possible regulatory depredations. Sometime in the future these subsidiaries could be very profitable, but for the present, cost recovery will clearly be more difficult than under traditional cost of service regulation.

This trend toward retroactive deregulation is also being considered in California where the commission is still investigating the merits of value based pricing for Diablo Canyon. Pacific Gas and Electric, which has almost 6 billion dollars at stake, might find this recovery method acceptable if, among other things, shareholder interests are adequately protected. Creative rate making practices such as this appear reasonable to many utilities when the alternative is a rate base disallowance of substantial magnitude. Witness Gulf States' recent attempts to inventory large amounts of River Bend rather than have the Louisiana and Texas regulators force them to write it off. Less creative ratemaking occurred in the case of Montana Power which resulted in a separate deregulated company being established for Colstrip 4 after the regulatory and legal scuffle over ratebasing for Colstrip 3.

Whether deregulation is imposed retroactively or prospectively, bondholder risk is increased. Deregulation breeds financial uncertainties. The outcomes under any deregulation scenario will depend on each utility's pricing structure, marketing ability, and capacity position. As electric generation takes on free market characteristics and the contest to sell power ignites, there will be some losers and some winners but all utilities will encounter additional business risk by merely participating in the competitive game. The winners will be those utilities with low cost marketable capacity, while the losers will typically have high cost embedded capacity. Clearly, many utilities, both the winners and the losers, are not only aware of the situation but are actively preparing for the probable future.

From EUA's heavily discounted purchase of part of Seabrook to Duke Power's recent interest in an ownership position in SMUD's troubled Rancho Seco nuclear plant, various utilities are taking widely divergent actions in an attempt to benefit from a deregulated utility industry. Alternatively, Commonwealth Edison's loss of a municipality's load to Wisconsin Electric Power and the city of Chicago's announced plan to consider alternative sources of supply highlight the risks to relatively high cost producers. The future of the high cost supplies is extremely precarious. Most non-traditional alternatives seem to result in losses for the utility involved, from dumping power at a loss for an unknown time period to permanently writing down the asset (and the company's equity). If the final resolution of Middle South's attempt to get someone to pay for the high priced power from Grand Gulf results in open market sales, and prices that restrict cost recovery, bondholders and equity holders are going to suffer serious financial losses.

Financial performance under competitive conditions will be less certain than in a purely regulated environment. Ultimate sales will be subject to the caprice of free market demand and the impact of new entrants in the marketplace. If and when traditional franchise rights are overridden by deregulation of bulk power sales and mandatory retail wheeling, utilities could stand to lose large profitable industrial customers and significant sales to lower cost producers. The end result could be the inability of the utility to provide the quality and quantity of service required.

Substantial sales volatility would likely translate to earnings swings, particularly in the absence of regulatory adjustment mechanisms. Profit margins would be squeezed or eliminated if market prices don't sufficiently exceed generation costs. Montana Power's deregulated Colstrip unit serves as an obvious example. When investors no longer have confidence in the IOU's ability to earn a fair return on property devoted to electric service they will demand a higher return to compensate for the higher risk. Internal cash generation could be impaired, forcing a greater reliance on external capital to fund expenditures. Capital attraction, however, may be more expensive and less accessible given the uncertainties of an unregulated, capital intensive industry. Investors will require returns commensurate with the increased risk profile of a competitive industry which could translate into substantially increased costs of capital.

In a deregulated industry there are operational risks as well. Today there are many pockets of excess capacity around the nation and it is a buyers' market. However, growth in demand, combined with substantially reduced base load construction forecasts, implies that those excesses will decline over time. When the shift occurs to a sellers' market the risks will also move from the sellers to the buyers. Net buyers of power may find it more difficult to secure long-term capacity or be confronted with substantial cost increases in order to obtain that power when supply is tighter. Today, proponents of deregulation are eager to take action while electric supply exceeds demand and prices are soft. But it is questionable how supportive those same proponents will feel in 5, 10, or 15 years when excess reserves have disappeared and demand and supply meet at significantly higher prices. Deregulation does not provide any assurances that adequate capacity will be available to satisfy load nor does it dictate under what terms builders will build or investors will invest.

Service quality may also be compromised in a deregulated environment. In a situation where the surety of recovery is far from certain and the actual demand for the product unpredictable, electric generators may defer base load construction until a more definite market becomes apparent. Such deferrals may not necessarily be in the best interest of the retail customer and may ultimately impair service quality. Service deficiencies rapidly translate into financial penalties where total deregulation has not been achieved.

It is not unthinkable that the ultimate retail distributors may be forced to incur the bulk of construction risk through long term cost plus or take or pay type contracts in order to be assured an adequate power supply. The risks of entering into such contracts may be as great if not greater than participating in the construction directly especially since construction and operating controls would be removed from the purchasing utility's hands. Without such contracts, however, the capacity may not get built in a timely manner. Even when adequate supplies of purchased power are available at reasonable prices, utilities have found themselves at risk for the recovery of their costs. San Diego Gas & Electric is potentially liable for any amounts above avoided costs for power purchased over its Southwest Power Link and Gulf States is facing a huge liability to Southern Company because it stopped paying for large amounts of purchased capacity after both the Louisiana and Texas commissions disallowed recovery of the costs. And both of these examples were for relatively inexpensive supplies. What happens when tight supplies cause sharp increases of prices?

With the further spread of competition, utilities are likely to consider restructuring the company in order to respond to the demands of a changing industry. Restructuring can take many different forms: from splitting the company into generation, transmission and distribution firms, or to a simple restructuring of the balance sheet. To date the most common form of restructuring is occuring on the liability side of the balance sheet as managements strive to determine their optimal capital mix. Strategies vary depending upon individual corporate objectives and challenges. Financial repositioning involving use of sale/leasebacks, receivables factoring, floating rate debt, displacement of preferred stock, stock buyback plans and simply adding additional leverage have all become fairly common in recent years. If a utility is under significant pressure to reduce the price of its product, reduced capital costs can help. Selling your accounts receivable (or any asset for that matter) can reduce the amount of capital on which a utility needs to earn a return. Similarly a sale/leaseback can lower the initial revenue requirement associated with putting a new asset in rate base.

Now I am not trying to impugn the value of any of these financing techniques. But bondholders do not feel very comfortable with the argument that more debt leverage is needed to preserve pricing flexibility and market share. First, while this may well lower the cost of capital, regulators may lower rates as a result. Moreover, attempts to compete solely on a price basis with a competing utility forced to dump power at a fraction of cost are not likely to result in attractive profit opportunities. From a credit perspective, we view negatively the addition of greater financial risk in response to heightened business risk. Intensification of business risk effectively erodes the stability of revenues; increased debt leverage raises the fixed costs that must be serviced with that less stable revenue stream. The end result is greater earnings volatility and weakened bondholder protection.

While not yet as prevalent as balance sheet restructurings, a number of utilities have been considering realigning the corporation vertically into more functional lines of generation, transmission and distribution. This can be done by using subsidiaries of a holding company or by actually spinning-off assets into new companies. Much of this activity, to date, has been spurred by regulatory or financial difficulties. I have already mentioned the restructuring attempts of Public Service of New Mexico and Commonwealth Edison. More recently Gulf States has announced it is considering splitting the company into a generation sub and two distribution companies so that Texas ratepayers will no longer subsidize those in Louisiana.

A more seasoned example is Tucson Electric's spin-off of generating assets into Alamito which also contained some all-important long term contracts (it is always more comfortable and often more lucrative in a highly competitive world to be protected from a down market with long term contracts). Since it has been an independent company, a number of successful and not so successful efforts have been made to take control of these assets, showing that there are some who feel that profit opportunities exist in a less regulated electric generating industry. When the wholesale market heats up as supplies become more scarce, having an asset separated from retail regulators could allow higher profit opportunities (depending, of course, on the future permissiveness of FERC).

As with everything else I have talked about today, this strategy could leave bondholders worse off. Even without increased leverage in a generating sub, the debt is an additional step removed from the actual source of revenues (the ratepayers) and that removes an important layer of protection. Because the generating company must rely on a contractual agreement with the distribution company to collect its revenues, the debt obligations of the Genco will likely have less protection than under traditional integrated structures. Also, a one asset generating company exposes its bondholders to the obvious risk that that one asset must operate successfully or the revenue stream could be impaired. That risk is magnified when that one asset is a nuclear plant.

Since it is no longer allowed to give a utility speech without discussing mergers and acquisitions, I will make a brief contribution. Specifically, as it relates to potential competitive responses. The competitive benefits being espoused by investment bankers may not be so easily achieved. Many utilities already realize economies from sharing base load generating units and electricity from regional power pools. As we have already seen, however, there will be situations where competitive benefits will flow from an acquisition.

PacifiCorp and Utah Power & Light, if all approvals are ever granted, are likely to realize several benefits from their combination: combined transmission and distribution systems will open opportunities for marketing power to California; Utah can end its long search for a new CEO; and because of anticipated cost savings, Utah's rates can be decreased. Additionally, the two utilities have different seasonal peaks, which should allow for more efficient operations. Similarly, the combination of Savannah Electric into the Southern Company will eliminate Savannah's need for new generation supplies and give Southern a market for some of its current excess generation. By themselves, these or other utility combinations do not necessarily harm the bondholder. But, acquisition by a lower rated entity or one funded with large amounts of debt may not be so benign.

To summarize, as is the case in all industries, security holders require returns commensurate with risks. In the electric utility industry, required returns have reflected the expectations that regulation would provide a reasonable assurance of capital recovery. In a competitive environment, however, shareholders will have to accept an increased proportion of the risk and will, therefore, require higher returns. And, for a given rating category, bondholders will require an increased level of statistical protection to offset the incremental risk of a competitive environment. Earnings protection measures would need to be higher to provide more adequate insulation from earnings swings. Stronger cash flows would be necessary to help minimize the risks of external financing pressures. And less leverage in the capital structure would aid financing flexibility in potentially less receptive securities markets. The higher equity cushion would also be important to soften the impact of earnings volatility. The bottom line is that more conservative capitalization and enhanced creditor protection would be necessary to compensate bondholders for the increased business risk associated with competition.

The Chairman. Thank you, Mr. Trabandt.

Mr. Naeve.

STATEMENT OF HON. C.M. NAEVE, COMMISSIONER, FEDERAL ENERGY REGULATORY COMMISSION

Mr. Naeve. Thank you, Mr. Chairman and Senator Ford.

Like my colleagues, I am pleased to have the opportunity to appear here today. Chairman Hesse's electric policy initiatives involve a number of important issues that can and should be addressed at this time. I particularly welcome the Congress' attention to these issues.

A far-ranging and healthy debate about the future of the electric power industry has arisen in response to these initiatives. The debate will continue long after the completion of the relatively modest proposals before us today.

I say modest not to minimize the importance of these measures as sound regulatory responses to changing technological and economic conditions, but rather to emphasize that these measures are far from revolutionary.

Indeed, they are evolutionary and, without mandating any restructuring, they should provide the industry with additional flexibility and options to respond to increasing competitive pressures.

To illustrate my point, I would like to characterize in the most basic terms the three proposals currently before the Commission.

The first proposal involves the administrative determination of avoided cost rates. The problems encountered by many states in calculating avoided costs for new capacity offered by qualifying facilities was well established in our spring 1987 PURPA hearings and elsewhere. The Chairman has properly proposed that the Commission clarify the states' obligations in this regard.

The second proposal involves competitive bidding for new generating capacity. Questions have arisen as to whether the PURPA statute and our regulations allow the use of competitive bidding to determine avoided costs for QF capacity. Several states have implemented competitive bidding procedures. Others are considering it.

I believe that as responsible regulators, we should clearly set forth the minimum requirements that states should observe should they elect to implement this method of QF pricing.

I stress minimum requirements because I believe it is important that we leave the state maximum flexibility to experiment and design systems tailored to their unique needs. Indeed, the very use of competitive bidding to establish avoided costs should be completely optional and left to the sole discretion of the states.

The third proposal deals with independent power producers. The emergence of this class of electric-generating entities has quite naturally raised the question of what regulatory approach is required for this distinct class of industry participants who lack the market power associated with traditional utility generation.

The Commission has historically used the tools of economic regulation to control the use of monopoly power. The absence of such power presents the generic question of the extent to which there is a need or a statutory obligation to regulate independent power producer transactions.

Several cases involving these issues have come before the Commission and will continue to be presented to the Commission in the future. My view is that we can better serve the public interest by soliciting broad public comment and establishing a generic policy through rulemaking rather than reviewing these issues in the isolation of a case-by-case adjudication.

Having embraced these three proposals as concepts, I look forward to now addressing the specifics of these regulatory programs.

Much of the concern about these initiatives has focused on exactly how these concepts would be implemented. None of us can productively deal with these matters any longer as mere concepts. Proposed rulemakings will allow all interested parties to focus on the real merits of these initiatives.

Without prejudging any issues, I would like to highlight one important concern, the role of utilities in these programs.

I am concerned that in defining permissible competitive bidding systems and establishing a regulatory structure for independent power producers we not disadvantage electric utilities or undermine the viability of utilities as future providers of generating capacity.

Our goal should be to expand utility and consumer options, not reduce them. A truly healthy electric industry will not evolve by creating yet another favored class of energy suppliers or by ignoring the valuable expertise of the utility industry. In this regard, the competitive bidding system should be neutral and not favor any category of supplier.

We must also allow utilities to participate as independent power producers to the fullest within the limits imposed by the Federal Power Act and the antitrust statutes.

Further, any competitive bidding procedure should not jeopardize the reliability of existing utility systems by depriving utility management of its primary role in planning and operating utility systems.

In closing, I would like to emphasize that the Commission should not attempt to impose through these initiatives any particular vision of the future of the utility industry. Instead, we should create an environment that opens up a variety of future supply paths and leave it to the industry and concerned regulators to select among those paths as they make their future supply decisions.

I look forward to the comments of all concerned as to how we can best achieve that goal.

Now I look forward to your comments and questions and thank you for the opportunity to be here today.

The CHAIRMAN. Thank you very much, Mr. Naeve.

It is interesting to get back to PURPA. This committee was there at the creation. I know Senator Ford and I both were on the conference committee that created PURPA. Frankly, I had forgotten what we had done. I am glad to hear that it has worked out fairly well.

It has been a success, has it?

Ms. HESSE. It has been a success, yes.

The **Chairman**. First of all, before we get into PURPA, what is your prediction as to the need for electric power in the next decade and beyond?

Anybody can answer this question.

Ms. **Hesse**. Charles, you are the forecaster.

Senator **Ford**. She endorses your statement, too, so go ahead.

Ms. **Hesse**. In advance.

Mr. **Stalon**. Actually, in my testimony I rely partially on the Department of Energy forecast. I was looking for the numbers, but what we did was to qualify them so heavily, emphasizing that we have almost no confidence in them. [Laughter.]

I am reluctant to repeat them. Rather than thumb through and search for them, let me generalize a couple of points.

Given long gestation periods in this business, 8, 10, 12 years, whether we will need new capacity in the early 1990's or the late 1990's is a matter of not a great deal of importance to the debate.

What is important is we have the mechanism in place so that people are willing to take the risk to undertake those projects.

The **Chairman**. Projects being IPPs, PURPA projects?

Mr. **Stalon**. Or utility base load units, if that is the issue, and I think it is the issue.

What we are seeing today is that large utilities are expressing their unwillingness to undertake major investments of long gestation under the risk pattern that they say has evolved under regulation in the last approximately 10 or 12 years.

The **Chairman**. Let me digress here a minute. I noticed in your statement that you said that one of the things that is broken is this ex post facto prudency review.

Should that be changed? Should there be a contemporaneous review of a decision to build a new plant?

Mr. **Stalon**. I do not think that a contemporaneous prudence review situation is a feasible way to approach the problem.

I realize a lot of utilities like that. They would like to have the commissions assume the risk for the ratepayer at the time the project is undertaken and then perhaps review it as time goes on.

I call your attention, to be precise, to the mission that I was formerly a part of at the State level. I had approximately 300 staff persons; 100 of those were devoted to regulating transportation, which left less than 200 or approximately 200 for utilities, and it was trying to regulate 340 utilities.

The single largest utility on the electric side probably had more accountants than the commission had entire staff. It is not feasible to expect public utility commissions to replace the steely-eyed investment bankers in evaluating risks. They do not make the money, and they do not have the staff to do that.

So I think it would be an inappropriate solution to this problem to expect State commissioners to evaluate, pass off and approve on this risk.

My second argument would be I do not think it would work anyway if they did. I suspect that their lack of credibility because of their lack of expertise and personnel would not carry weight 15 years later when the mistakes have to be paid for.

I would remind you that there will be mistakes. There are always mistakes. This Nation is now paying for many mistakes that were made in the 1970s and early 1980s. There are always mistakes with forecasting, and the question we are debating is who will bear that risk.

The CHAIRMAN. You think there will be a need for central station power sources?

Mr. STALON. Oh, yes. Yes. I think the uncertainty that we have seen expand greatly in the last seven or eight years will probably change the optimal mix and that large baseload plants will be somewhat less important as a proportion of the total mix than they were in the past, although that may not be true if we can expand the transportation system.

Clearly, though, they will play a vitally important role.

The CHAIRMAN. What order of magnitude of increase in power are we talking about percentagewise, say, in the next 10 years.

Mr. STALON. I think since the late 1970s we have been seeing about 2 or 2.5 percent per year for the Nation instead of the 7 percent that had been forecasted earlier.

I find it difficult to believe that the rate of electricity growth will fall below the rate of real GNP growth, so I do not think we should expect anything less than 2.5 or 3 percent over time.

Since there are very good reasons to believe that electricity will become an important substitute for other energy sources in many applications, I think it is still plausible to argue that electricity growth may slightly exceed the real growth of GNP.

The CHAIRMAN. Now, how much of that in broad terms could be supplied by QFs and IPPs?

Mr. STALON. I do not think we have the vaguest idea. Until we provide the opportunities and see what kind of risks people are willing to bear, we just will not know.

I personally would not be surprised to see those dominate the industry within 20 years. If we can provide access to markets for independent power producers, I would expect some of the utilities that have demonstrated a great expertise in construction to spin off subsidiaries and become IPPs and territories all over outside their own.

All utilities, however, have not been equally successful in construction. Some stand out as being greatly superior.

If the states welcome this, I would expect IPPs to become a dominant source of power in 20 to 25 years.

Mr. TRABANDT. Mr. Chairman, could I take a shot at that question?

The CHAIRMAN. Yes. While you are at it, one of the problems that I foresee is that companies will not want to build either nuclear or coal, nuclear because of the cost and because of the economic problems and the uncertainties and coal because of the uncertainties of acid rain legislation and that sort of thing.

Do you share that view? If that is true, what can we do about the problem if the problem is a coming shortage?

Mr. TRABANDT. If I could just step back to the original question, I would invite the committee's attention to the North American Electrical Reliability Council's annual report which was issued in November of last year.

It is the report which reviews electric supply and demand for the country as well as the North American continent in the period

1988 to 1997, which I believe is the most comprehensive and most recent review of these matters.

NAERC concluded that with what they believe is the likely growth factor, which is slightly in excess of 2 percent over that 10-year period but something less than 2.5 percent, as I recall, that we would have sufficient supply based on current utility planning to satisfy that growth with a slight reduction in the reliability factor from, I believe, nationwide about 25 percent to 21 percent. I do not have the report, with me today unfortunately. This is from memory.

None of the regions would be at a reduced reliability factor of any significant reduction. NEPA, as we know, has a constrained supply situation it peak period times as they have had as recently as this month where they are dependent on imports either from Canada or from the adjoining region.

I defer to your staff to the review all the numbers, but, on balance, it was NAERC's conclusion that based on current plans, we could meet the projected growth over the next 10 years.

The CHAIRMAN. Based on current plans?

Mr. TRABANDT. Based on current plans. Perhaps I or the Commission can provide the numbers for the record if that would be helpful.

The CHAIRMAN. Do the current plans have new coal or nuclear plants in the mix?

Mr. TRABANDT. They have completion of the plants which are under construction, and I believe there are some outstanding commitments for new coal-fired plants. There are no outstanding commitments, as you know, for additional nuclear plants.

The CHAIRMAN. There are some coal-fired plants?

Mr. TRABANDT. I believe that that is the case, Mr. Chairman.

As you can imagine, it is a several-hundred page report that identifies specifically plant by plant what the planned acquisition would be.

As I recall also, the report concludes that something approximating 20 to 25 percent of the new additional capacity would, in fact, come from so-called nontraditional sources, which would be QFs, IPPs to the extent that they could participate, and what other form of nontraditional source might exist.

So that the bulk of the power for the next decade and, I would argue, the overwhelming bulk of the new power for the next decade is going to come from traditional sources based on existing plans.

As you well know, if you want to have a power plant on line in the next five to 10 years, you certainly will have something more than a dream of that right now. It will have been reduced to quite a bit of activity and planning both of an engineering and financial and regulatory nature.

So that 10-year horizon, at least as I understand, is fairly well developed and is not likely to be changed markedly by anything short of some crash program that we might develop.

As to central station power sources, I think it is clear that with regard to new commitments by traditional utility organizations, the overwhelming bulk of those are to nonbaseload plants.

I guess what I would argue is that right now that is a matter of the decisionmaking process as between utilities and their regulators, and it has tended to go in that direction for all the reasons this committee has studied over the past several years.

Nevertheless, my concern with regard to the pending proposal is that the new regulatory process that would be imposed by these notices of proposed rulemakings would, as a matter of process and Federal regulation, not as a matter of discretion as between the utilities and their regulators, almost inevitably preclude any new commitments five, 10 or 15 years from now to baseload capacity, simply because they will not be winners in the all-source competitive process. I have argued that that is one very significant deficiency.

The **CHAIRMAN**. That is one very significant?

Mr. **TRABANDT**. Deficiency in this process, is that it would preclude by process any new commitments to baseload plants.

The **CHAIRMAN**. Why would that be so?

Mr. **TRABANDT**. Because I think that it is both practically and politically unlikely that the type of solicitation and the type of review that we have here would lend itself in the end to any new commitments to baseload plants.

If I could just follow up for one second, if you looked at Attachment 2 which I prepared for the committee's review, you will see that in step 2 of this process the PUC which chooses to have an all-source competitive bidding system must approve and must certify a need for power before there can be any process to acquire that new power.

Senator **FORD**. Mr. Chairman, I think if Mr. Trabandt's projection is right from where he is quoting, this proposal is just forestalling that 10-year projection which is now on the board. I just wanted to throw that in.

I think this proposal is absolutely forestalling this 10 years.

Mr. **STALON**. I would like to respond.

Mr. **TRABANDT**. May I finish my point before I lose the floor?

The point I wanted to make, Senator Johnston, as to why I have concluded that we will have that inevitable result is if you look at step 2, the State PUC would have to have a public process by which it first would have to have a need for power certification before there can be any effort to acquire new capacity.

Second, there can be no new capacity acquired for a utility unless it passes through these steps.

Finally, the PUC would be required after the selection process to certify, in effect, that the bidders who were selected would meet a prudency and a least cost pricing standard.

I think if you put all that together and think in terms of the public processes in the several states, it is highly unlikely that the commitment to baseload capacity, be it coal or nuclear or gas, conceivably, would likely survive that kind of a process, either in terms of being included as the subject of solicitation (simply because of the long lead time requirements) or being able to demonstrate satisfactorily that it truly was least cost.

The **CHAIRMAN**. It sounds to me like the process you described is the contemporaneous approval of power source that Commissioner Stalon said was not possible.

I wish you would reply to that.

Mr. STALON. Yes. Most states have a certification procedure now where they pass on the need for power and the right to build a plant. I would say they all do.

The procedures we are talking about, to my view, would not change that. The utility and the state would still have the ability to say what we are after here is this kind of capacity. We want baseload capacity. That would go up for bid.

I do not see that we are slowing up the process at all. As a matter of fact, one of the criticisms of the process now is it is very long and, therefore, very risky, and what we are trying to do is to avoid slowing it up, maybe make it a little faster, but, above all, let those who are willing to carry the risk do so and bring those risks out in the open.

I do not see that this will have any detrimental impact on baseload configurations. I see a lot of other things discouraging nuclear. I think I could be so strong as to say we are not likely to see another nuclear plant started until there is some major change of Federal policy and public opinion.

I think we are not likely to see very many large baseload coal plants started for some time. I think the reason for that is twofold. One, we do have a very serious debate over the environmental impact. Second, they are very risky.

The CHAIRMAN. Very risky from the standpoint of?

Mr. STALON. Of the firm that undertakes them and the state that starts them; that is, the gestation period is very long. Nobody is quite sure what retrofitting is going to be required. They are very durable, long term investments.

The CHAIRMAN. Environmental uncertainty, you mean?

Mr. STALON. Environmental uncertainties as well as investment uncertainties.

I would add another reason I think is even more important than this. Recall what happened when all of the failed forecasts began to enter policymaking in the mid and late 1970s. What we cancelled were all of the short gestation projects. We continued and completed most of the long gestation coal-fired and nuclear plants, not all of them but many of them.

If you have a plan on the books and you look forward 10 or 12 years and you see the portfolio of generating capacity you want 10 or 12 years down the road let's say you want certain cycling plants, certain peaking plants, certain coal-fired plants, certain nuclear plants you have to start building the baseload plants 10 or 12 years before you need them. However, you do not have to start building the cycling plants until maybe five or six years before you need them, and you do not have to build the peaking plants until, say, two years before you need them.

So if your plants go awry, you cancel everything that you are not yet starting on. The consequence was that, in the period of the 1970s and 1980s, we increased the proportion of baseload in mixes, probably more than optimal.

Given the increased uncertainty today, I would expect all utilities to henceforth, for some period of time, try to bring that portfolio back in line, and that they would go for gas-fired peaking units and cycling units of various kinds until the mix gets back somewhat like they would prefer. Then they would start building the baseload plants again.

On the other hand, if the technology is such, and there are arguments that it is such, that the economies of scale to be gained off the 1,000 megawatt or 1,200 megawatt coal plants are no longer there, then we will not see those units again. We will see utilities building 400-500 megawatt plants. If it is true that certain of the new technologies are favoring the 200 megawatt coal plants, that is what we will see.

We will see a change in mix to reflect the new technologies and the new levels of risk.

The CHAIRMAN. Is there no longer an economics of scale with large coal-fired plants?

Mr. STALON. There does not seem to be any plant economies that cannot be efficiently exploited either in a competitive system or in a regulatory system.

Clearly, if the Nation were to build a very efficient transmission system so that large plants could be effectively coordinated, the optimal mix would require more large-scale plants. But if we do not build the transmission system and each utility continues to act as an island, feeling compelled to have generating capacity to meet its own needs, then they will not build as many of those large plants, and what scale economies do exist will not be exploited.

The CHAIRMAN. Let me ask one more question, and then I will turn it over to Senator Ford. I have taken too long.

Senator FORD. You are doing very well, Mr. Chairman.

The CHAIRMAN. Thank you.

When you go to have this competition, to what extent is there a difficulty in defining your noncost matters such as reliability and that kind of thing? Is that a big problem?

Mr. STALON. I think it is a big problem, but I think the states have shown that they can handle it, and I would expect that, as more experience would develop, they would handle it very well.

Yet, the expertise of the purchasing utility will have to be brought to bear on all those noncost factors. The utilities obviously cannot be ignored here. They are very important. That is one of the major arguments that has been advanced for denying to the utility the right to bid in its own territory. We certainly need the expertise that the utility and only the utility has, and we need it uncontaminated by any self-interest to evaluate all of these bids. However, we are not proposing in this proposal any specific way to assure that; rather, we assume the States can do so.

The CHAIRMAN. Can the utility define the reliability requirements when they put out their RFP?

Mr. STALON. Yes, I would think so.

Reliability has many dimensions. The reliability of the individual unit is only one of them. Dispatchability is one. There are many different dimensions, and I would expect a utility to try to define all of those that are of great importance.

The CHAIRMAN. For example, I know that some of the solar plants out in California obviously produce the power for the most part only during the daytime. I think some of them have batteries or can store energy overnight.

But can the utility in its bid define that they want power 24 hours a day, or is that up to the PUC?

Mr. STALON. That would be up to the utility and the PUC to specify in the bid RFP.

The CHAIRMAN. When they do that, can they thereby write out of the competition solar facilities, for example? Should they or should they not be able to? Does your proposal deal with that?

Mr. STALON. I have tried to avoid talking about what the proposals say in detail because they obviously are not in final form.

I would call attention to the fact that in my testimony I argue that the state should be permitted to set aside certain quantities for R&D types of technologies that they wanted to stimulate and improve.

I do not want to talk about what is in the proposals because the Commission has made no proposals yet. What we have are staff proposals to us for consideration.

The CHAIRMAN. Just one more question.

I know you have noted that one of the problems has been that PUCs have required utilities to purchase noneconomical power.

How did they do that, and how does your proposal deal with that problem? What was the mechanism by which they did that, and how do you deal with that problem?

Mr. STALON. One simple mechanism was that the legislature of the State of New York passed a law which said that there will be a floor, $.06 per kilowatt hour. The rate may be higher, i.e. the PUC may set a higher rate, but it cannot set a lower rate. It is a matter of State law.

The CHAIRMAN. So you had to buy it at $.06?

Mr. STALON. That is right. You had to buy it at a minimum of $.06. The utility was required to do that.

I cannot give you an example but I know the debate is going on in other States. There are considerations to mandate that the utility buy power from a favored technology at a rate——

The CHAIRMAN. California has done that, have they not?

Mr. STALON. Yes. California I think has done that. I am not so sure because theirs is a very complex system. But, generally, the favorite technology today seems to be power produced from garbage. The notion is that subsidized rates would be a very effective way to help solve the garbage problem. States would mandate that the electric utility buy power at some above-avoided cost rate.

The CHAIRMAN. Should states of PUCs be able to do that?

It seems to me one of the problems we have gotten into in this country is to put a moral value on different kinds of electric generation, and it used to be specific kinds of solar. Windmills were in great favor there for a while.

Last year, Senator Ford, if you had flown from Yosemite to San Francisco, you would fly over this windfarm. There are, it looked to me, like hundreds and hundreds of these windmills, most of which do not turn.

There has been an investment out there, I bet, in the hundreds of millions of dollars; just an idiotic policy which was probably created right here, probably in the Finance Committee and in the State of California in their tax statutes.

[Laughter.]

The **Chairman**. But there they are.

Mr. **Stalon**. I would like to follow up very briefly. I think in many cases the states just simply misestimated avoid costs and had utilities signed contracts that were long term at prices that were simply reflective of erroneous estimates.

I would call attention to the fact that the FERC has interpreted PURPA, I think correctly, to say that the authority of PURPA can never be used to require a utility to pay more than the avoided cost.

The authority of PURPA is clear. No state can use the authority of PURPA to require the utility to pay more than avoided cost.

The **Chairman**. But that has happened, has it not?

Mr. **Stalon**. Yes, but they did not do it, as far as the FERC is concerned on PURPA authority; they must have done it on their own State authority.

Now, that causes some problems which we need not go into at this point.

I would argue one other point that I think is of really great importance. You touched on the point that we should not have a moral preference for power. As an economist, I endorse that wholly; but PUCs have used the utilities in many cases as instruments to carry on and subsidize research and technologies which, for one reason or another, they think may have promise.

I would not like to tell the states that they cannot do that, although I suspect very clearly the Congress could do so.

Mr. **Trabandt**. Mr. Chairman, I think the answer to your question is in the proposals that are pending, if there is a proposal which is the subject of subsidized financing, the proposal would argue in opposition to its inclusion but would allow the state to decide. There is a general opposition to exclusions based on either ownership, technology or fuel types.

In other words, that under the so-called, and I even hesitate to mention the words, level playing field approach, in economic terms, the value of the particular proposal would be determined by the competitive process itself and that that should not be perverted by having set-asides for one particular preferred approach or another.

I think, however, that because of the discretion in the State commissions, there could be conceivably some participation on the technology. With regard to specific technologies, the State commission could decide to allow for such.

The **Chairman**. Senator Ford.

Senator **Ford**. Mr. Chairman, I think Mr. Stalon characterized this whole question a while ago when you asked him about it. He said I do not believe we have the vaguest idea.

In the final analysis, I really do not know which mix of technology is going to be the best, so I prefer to leave it to the marketplace, and those are the same steely-eyed bankers he has referred to that loaned all the money to the South American countries. [Laughter.]

So I have some real problems with where you are going.

Now, Madame Chairman, do you see any urgent need to implement your proposal this year?

We should we not, as a Nation, take the necessary time required to fully address not only this issue but also the broader agenda you have previously spoken about, such as reduced regulation of selected bulk power transactions, incentive regulations and flexible transmission prices?

Why should we proceed on a piecemeal basis?

What is your time frame for implementing this proposal?

Ms. **Hesse**. Senator, I believe that there are a number of issues, the ones that you have just mentioned, that we, as a Commission, need to address. But we cannot address them all at once. We must bite off manageable pieces and go forward.

Now, it seems to me that we ought to start at the beginning, and that is with generation, and that there is some concern in both houses of Congress as well as in the industry itself about PURPA.

It was passed in 1978. The Commission has not looked at it for over a decade. Both the House and this committee held hearings a couple of years ago on the problems with PURPA. There are certain issues that we must address.

Now, this proposal is actually evolutionary. It is not a revolutionary idea. Many states are already doing bidding. Some want to do bidding but will not do it until the Commission says that it is legal, yes or no.

Even if it was a revolutionary idea, the electric utility industry is not going to change on December 1, 1988. These proposals are long-term, as I have said, and evolutionary. It will be a gradual process taking decades, maybe five to 25 years, for these kinds of proposals to be fully implemented. It is based on the states and how fast they want to proceed.

It seems to me we have to start somewhere, and the best way to start is with the formal process to put out some notices of proposed rulemaking and find out what the industry thinks.

Senator **Ford**. Should the industry or the utility secure all its future generation needs from IPPs, would the IPPs then have an obligation to serve the utility customers, or would the utility be required to continue to have that obligation?

Ms. **Hesse**. There is nothing in our proposal that disturbs existing relationships.

Senator **Ford**. What is an existing relationship generally?

Ms. **Hesse**. A franchised utility has an obligation to serve, and that would continue. All of these changes that we are proposing are transparent to the end consumer other than in the form of what we hope are lower prices.

Senator **Ford**. Then there would be no prudency examination of IPPs?

Ms. **Hesse**. No, I am not saying that.

Senator **Ford**. Well, Mr. Stalon alluded to that a while ago, and I did not know whether it was going to be before the fact or after the fact.

But IPPs have no prudency factor, as I have listened to your proposal and Mr. Stalon's eloquent statement.

Ms. **Hesse**. That is not the case, Senator.

Senator **Ford**. So there will be prudency.

How will that be applied?

Ms. **Hesse**. The State regulatory commission has a responsibility——

Senator **Ford**. Every time I ask you a question about something, you give that to the states, and when you want some other things you take it unto yourself. Either regulate them or let them go on their own.

We would do pretty well in our state if you would just leave us alone. We are the only state, I think, that has construction work in progress. We do very well, and we could get into some research and development and move right on with clean coal technologies.

But when you get up here with the IPPs and place it on them to do certain things, you do not require prudency, and I think that is probably where you are, you say it is all the states' responsibility.

I think the mix here is we are going to set the policy and the states have got to carry it out. I do not know if they have much input.

Ms. HESSE. Senator, first of all, based on PURPA and our statutory responsibilities, the Federal Commission is responsible for developing general rules for PURPA, and the states are responsible for implementing PURPA. That is by statute.

The State commissions are responsible for reviewing the purchasing practices of utilities, and there is nothing in our proposal that would change that.

Whether or not the states adopt bidding and, secondarily, whether or not they accept independent power producers is totally a decision on the part of the State commission.

Senator FORD. How do you handle interstate IPPs?

Ms. HESSE. If you mean a multistate——

Senator FORD. Interstate utility.

Ms. HESSE. Well, it seems to me that an integrated system has only one avoided cost and one capacity need systemwide, and it seems to me that what the states have to do is get together and decide what rules they are going to use for each of these multistate systems.

I will also add that we have not, as a Commission, decided that issue. That is my view.

Senator FORD. In the paper that I get which is a FERC staff paper, there was an article concerning regulating independent power producers which was very interesting reading if you can stay awake. [Laughter.]

That paper pointed to some special problems that could develop if an IPP was allowed to compete in the service territory of its parent utility. The problems like self-dealing, daisy-chaining and misallocation of costs are not new questions. In fact, there are State and Federal laws that guard against such abuses.

Why do you believe these laws would not be adequate to protect against abuses between the utility and its IPP affiliate?

Ms. HESSE. I believe that the existing laws are probably adequate to protect. All we were doing in that paper was suggesting that there are, in fact, some issues that we must address, some potential criticisms that we must address, but that we believe that the states can in fact develop appropriate regulatory posture to take those into consideration.

Senator FORD. Then you are saying you cannot have IPPs in your own territory?

Ms. HESSE. What we are saying is that a utility——

Senator FORD. Your staff is nodding their heads, so that is a good enough answer for me.

Is that correct?

Ms. HESSE. A utility can bid in its own service territory but not as an independent power producer, because we are unable to extend to regulated utilities the same benefits and exclusions that we can to an independent power producer.

But the utility who bids in its own service territory and wins will be given pricing flexibility.

Senator FORD. Well, you just said that the laws were adequate to take care of that, and now we are getting into something else.

It has been indicated that the competitive bidding process would be voluntary, and you said that in your statement that as long as it was voluntary with sufficient flexibility for utilities and State commissions to consider a wide range of power supply options.

What guidelines, if any, will FERC issue to include clean coal technologies and other innovative options in the bidding process?

Ms. HESSE. Senator, I would like to ask Commissioner Naeve to answer that.

Mr. NAEVE. Well, Senator, of course the proposal has not been voted out. It has been discussed by the staff. But my view is that we should leave——

Senator FORD. Now, before we go any further you clearly have not made a decision. You do not know what you are going to do; is that correct?

Mr. NAEVE. That is correct.

Senator FORD. All you have done is listen to the staff?

Mr. NAEVE. That is correct.

Ms. HESSE. Senator, I would like to explain.

Senator FORD. Wait just a minute. You turned it over to him and now you are coming back. It is kind of hard for me to stay with you. You approved Mr. Stalon's statement before he made it, and it is kind of hard to keep up with you. [Laughter.]

Ms. HESSE. I consider that a compliment. Thank you.

Senator FORD. I am trying to play ball here, you know, and it is kind of tough for me to do. I have problem, and it is obvious to you I have a problem.

Let him finish, and then you can come back. What he does not say, then you can disapprove anything he says.

Mr. Naeve, why not go ahead and finish, if you do not mind.

Mr. NAEVE. As to the status, we have a proposal from the staff, a draft set of regulations which we will consider in the next month or so.

I cannot speak for the Chairman. I believe what she was going to say is that she probably has signed off on those ideas, and the rest of us will consider, debate and vote on them in the near future.

As to the first question you asked, my view is that we should leave to the states as much flexibility as possible to decide how they will evaluate various competing technologies and various competing proposals to add new generation capacity.

Indeed, I think the states should rely primarily on the local utility to develop the criteria by which they evaluate various competing proposals.

There are probably certain minimum requirements which we would have to include in our regulations to insure that the State programs are not inconsistent with PURPA, because we do have an obligation to enforce that statute.

Beyond that, I think our approach should be to give to the states complete flexibility to implement any bidding system that they decide best suits their needs or to make the decision whether or not they want to use bidding at all.

Senator **Ford**. Are you recommending against Federally-subsidized technologies?

Mr. **Naeve**. Not where Congress has decided to subsidize a particular technology, no.

Senator **Ford**. How does that factor into rate?

Mr. **Naeve**. In a bidding system or under the current system?

Senator **Ford**. Both. Compare them for me.

Mr. **Naeve**. Under the current system, utility rates are based on their cost of service. To the extent utilities get some subsidy from the government—a tax subsidy or other type of subsidy—it tends to lower their cost of service and, therefore, would lower their rates.

I presume the same would be true in a bidding system. If Congress subsidizes a particular technology, a party wishing to use that technology when they bid would be able to submit a lower cost bid because the subsidy would lower their overall costs.

Senator **Ford**. They would not have to add that on to their bid?

Mr. **Naeve**. Not in my view.

I think we have to distinguish between subsidized entities and subsidized technologies. I presume the subsidized technology would be available to any entity that wanted to bid, whether it was an independent power producer or a utility or whatever.

In some cases, though, you might have subsidized entities, such as municipalities, that have tax preferences, and they might be able to bid at a lower cost.

My view is that it should be left to the states to decide whether or not they should let the subsidized entity bid and how they would evaluate that bid.

Mr. **Trabandt**. Senator Ford, may I try to give you an answer?

Senator **Ford**. I am for it.

Mr. **Trabandt**. With all due respect to my colleagues, there is no mystery. These are the proposals. We almost discussed them in a Commission meeting last week, and we will discuss them in a matter of a week or two. I do not know whose they are at this point, but we will be asked to vote on them.

The proposal says that a subsidized source means a person or corporation that receives public aid, assistance or money, including favorable treatment under Federal, State or local income tax laws, and also includes the Tennessee Valley Authority, a municipality or a Federal power marketing agency as that term is defined in section 3 of the Federal Power Act. And, with regards to all-source competitive bidding says a State regulatory authority or a nonregulated electric entity may exclude a subsidized source from being taken into account in a bidding program, and the preamble text argues strongly that they should, in fact, be excluded because all-source competitive bidding ought to be a level playing field.

That is the proposal. Now, I do not know whose it is, but that is what the words say, and that is where it stands today.

Senator **Ford**. Mr. Stalon, let me ask you one question, and then I am going to quit, Mr. Chairman.

In your chart that you had on the board a few moments ago, you had Utility 1, 2 and 3. You indicated the power coming through 2 to 1. Then you had the power coming from 3 all the way through as a nonutility generator. Then you had 3 going all the way over to 1.

What if 2 decides not to bid?

Mr. **Stalon**. Under the rules that I am proposing, if 2 decides not to bid, then the nonutility generators in 2 and 3 are foreclosed from access to the market.

Senator **Ford**. What about Utility 3?

Mr. **Stalon**. It has no right to get to 1. It is blocked from the market.

Senator **Ford**. So there is no wheeling from 3 over to 1?

Mr. **Stalon**. That is correct, unless Utility 2 decides to bid.

Senator **Ford**. So you are, in fact, suppressing wheeling?

Mr. **Stalon**. I would prefer to state the converse. The utility is suppressing wheeling, and I am saying that if they choose to bid we will not let them do that.

Senator **Ford**. Well, it may be in their best financial interest.

Mr. **Stalon**. I would presume that if it is in their best financial interest, then they would deny——

Senator **Ford**. Then they are the ones that become the culprit because you would not let 3 go to 1.

Mr. **Stalon**. That is exactly right.

Senator **Ford**. So then all the pressure is on number 2, is it not?

Mr. **Stalon**. That is exactly right.

Senator **Ford**. Every utility in this country has a Catch 22. If they have enough power, it is too much and the rate is too high. If you need more from them, then they did not anticipate and bill, so you knock them for that. Then you insert into your proposal that you are going to jeopardize the ability to wheel.

I have a lot of questions, Mr. Chairman, somewhere between 40 and 50, and I am going to submit those to the Chairman in writing, and she can delegate them to any member of the Commission, and I might just send a copy to each commissioner and see how they respond individually.

Mr. **Trabandt**. I would be pleased to respond to your questions.

Senator **Ford**. I understand that, Mr. Trabandt. [Laughter.]

Mr. **Trabandt**. I would be glad to start tonight, in fact.

Senator **Ford**. Just let me say to you that this is a murky area, and when the Commission members say to me that they do not have the vaguest idea of what is going to happen, it appears to me that you ought to at least be convinced in your own mind what this is going to do.

Then when you are here testifying for the record, saying you do not know what the mix is going to be, you do not have the vaguest idea what is going to happen, then I think it needs a lot more massaging, and I intend to see that you get it.

Thank you, Mr. Chairman.

The **Chairman**. Thank you, Senator Ford.

Is very little legislation required to implement this program?

Ms. HESSE. The draft NOPR's which, as we have pointed out, the Commission has not discussed among itself we believe are within our current existing statutory responsibility.

The CHAIRMAN. I thought there needed to be a small amendment to the Public Utilities Holding Company Act.

Ms. HESSE. Well, we do not know for sure what changes will be required to the Holding Company Act.

Clearly, it would be a lot easier if there were no restrictions on the utilities. We are in the process of looking at that. We have met with the SEC. The Holding Company Act is a matter, of course, between the SEC and Congress, and we will try to have as much input to that process as we can.

Mr. TRABANDT. Mr. Chairman, may I add a dissenting view? I think the proposal before us exceeds our authority under the Federal Power Act and under PURPA, and I point out in my testimony why I think that is the case.

So we have a disagreement, I believe, on the Commission at this point as to what is the extent of our legal authority in terms of not only what we do but also how much we can delegate to the States and how far we can go to decide that the market forces can replace embedded cost regulation in determining what is a just and reasonable rate.

The proposal before you would largely abandon traditional regulation and adopt the competitive process for——

The CHAIRMAN. You say the whole system exceeds the power or only that it would be made more convenient by some amendments?

Mr. TRABANDT. I think that, on balance, as now drafted, at least in this paperwork, and I know of no other paperwork, it exceeds our authority with regard to several factors of both the Federal Power Act and the PURPA statute.

The CHAIRMAN. There is a difference of opinion on the Commission.

Well, there are, of course, many other questions that I would like to ask. I know Senator Ford has some he would like to ask in writing, but we have another three members on the panel for this morning.

So with that, let me thank each member of the Commission for excellent testimony. It was very provocative, very interesting, and we will continue with the other witnesses.

I might add tomorrow that we will have an alternate sound for tomorrow's hearing in 192 Dirksen for those who cannot get in here.

Ms. HESSE. Thank you, Mr. Chairman.

The CHAIRMAN. Our next panel is a panel of PUC Commissioners. We are pleased to welcome back to the committee the Honorable Edwyna G. Anderson, Commissioner of the Michigan Public Service Commission, who also is representing NARUC.

Also, we have the Honorable Bob Keegan, Commissioner from the Massachusetts Department of Public Utilities, and the Honorable Elizabeth Lacy, Chairman of the Virginia Corporation Commission.

We are pleased to welcome each one of you. Commissioner Anderson, if you would lead off, please.

STATEMENT OF EDWYNA G. ANDERSON, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION, ON BEHALF OF NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Ms. ANDERSON. Thank you very much, Mr. Chairman.

As you know, NARUC is a very diverse association whose members are necessarily concerned with activities in their individual states but whose mutual concerns are set forth today. Briefly, these concerns can be summarized as follows.

Although the NARUC believes that PURPA has been successful, we support a thoughtful and careful finetuning of the implementing rules by the FERC.

Second, State regulators are in the best position to balance the interests of utility ratepayers with the mandate of PURPA and must be offered maximum flexibility to apply the framework of this law to their unique local circumstances.

Third, the FERC should act quickly to resolve both power and transmission and access and pricing policy issues. It also may be timely for the Congress to examine jurisdictional questions related to inter- and intrastate wheeling.

Finally, a full and open process of regional public hearings should be undertaken when the FERC issues its notices of proposed rulemaking so as to allow a full discussion of specific issues by all interested parties.

In that regard, I would suggest that the recommendation by Commissioner Trabandt this morning sounds like one that the NARUC could certainly be interested in.

It is our view that PURPA has thus far been a model of Federal/State cooperation and has largely achieved its goal of developing efficient alternatives to traditional utility electricity generation.

This is not to say that the implementation of PURPA has been without problems. Rather, it continues to evolve.

Most importantly, PURPA has shown us that there exists a broad entrepreneurial interest in the development of nonutility sources of electric generation, and that competition can be integrated into a traditionally monopolistic industry to the benefit of our Nation's ratepayers.

Moreover, the relatively rapid development of qualifying facility power and the potential for increased development of not only QFs but independent power as well shows that certain economies of scale may no longer exist in the industry and that efficiencies may be found in more decentralized markets with a broader mix of supply options.

Congress deserves a great deal of credit for originally establishing PURPA as a State-run program. State regulators appreciate and respect the guidance of Federal policymakers, and we would hope that, in turn, the FERC will continue to respect the need for states to retain the flexibility and independence necessary to tailor complicated regulatory principles to their specific local economies.

The role of the states as laboratories in the regulatory process cannot, we hold, be overemphasized. Chairman Hesse, her staff and other members of the FERC have made efforts to communicate with our members as to the status and substance of the FERC proposals, a matter we sincerely appreciate.

We hope that this cooperative spirit will continue and that it will be reflected in the substance of any regulatory changes, since State regulation and ratepayers nationwide will be directly affected by their outcome.

State commissioners' reactions to the FERC proposals have varied. There is, however, a strong consensus that although fine-tuning of the PURPA regulations may be appropriate and advantageous, the FERC should take no action that would restrict State flexibility under the Act or mandate specific means of setting avoided cost rates.

State implementation of PURPA has proven to be extremely flexible and, to a large extent, a self-correcting process. In instances where increased qualifying facility production has been disadvantageous to ratepayers, State commissions have been quick to respond by re-evaluating their avoided cost formulae.

This, in fact, is the origination of competitive bidding procedures. Competitive bidding as a means of establishing avoided cost rates for qualifying facility power is clearly an issue whose time has come. In fact, approximately 10 states now engage in or have proposed competitive bidding rules for the purchase of qualifying facility power, I might add, without the direction of FERC.

Although this by no means represents a majority of the states, it probably does represent states in which a majority of new qualifying facility capacity has been or will likely be proposed.

By clarifying the lawfulness of such programs under PURPA, the FERC would greatly assist the states' ability to develop flexible policies which can adequately address local needs and conditions with respect to an increasingly complicated energy marketplace.

The NARUC believes that FERC should authorize states to consider solicitations for energy conservation in their competitive bidding initiatives if they choose to follow that avenue.

A vast untapped potential for energy efficiencies in the United States may be available to help balance the supply and demand equation.

With respect to inclusion of a new class of independent power producers or IPPs in competitive bidding procedures, the proposals clearly imply a fundamental restructuring of the Nation's electric power industry.

Although this may reflect the direction in which the industry is already inexorably headed, we are wary as to whether the many questions which are raised can or should be resolved via the rulemaking process or within the time frame allowed by the imminent shift in Federal administrations.

We do not, however, wish to appear antagonistic towards such proposals. If State commissions are given sufficient leeway to address the complexities which would arise under the scenario of a competitive, virtually deregulated generating company or genco sector, the inclusion of IPPs in the framework of competitive bidding for new supply ultimately may be workable and advantageous.

The next point cannot be emphasized too heavily. The FERC must quickly address the pressing question of transmission pricing and access. We further urge that states be given the authority to regulate intrastate wheeling, allowing the Nation to reap the same benefits that we have seen with the implementation of PURPA.

We would also ask the Congress to consider a review of State and Federal regulatory jurisdiction pertaining to transmission and wheeling.

As discussions over the last year have shown, many parties have expressed a fundamental interest in the FERC proposals; therefore, due to the gravity of this situation along with the knowledge that virtually every citizen in this country depends on the electric system, we urge the FERC to allow sufficient time in the proposed rulemaking process for all to offer their views.

We request regional hearings on the proposed rulemakings, appropriate time, and the publication of the full record of these proceedings. In fact, again, the proposal by Commissioner Trabandt would seem to respond to that issue.

Finally, I would like to stress that the members of the NARUC are committed to rational change and will be, as we have been, prepared to meet the challenge of regulation if we are given sufficient flexibility to work with our utilities, ratepayers, Congress, Federal regulators and others to seek the most fruitful path.

Thank you.

[The prepared statement of Ms. Anderson follows:]

BEFORE THE
UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

TESTIMONY OF

THE HONORABLE EDWYNA G. ANDERSON
MICHIGAN PUBLIC SERVICE COMMISSION

ON BEHALF OF THE

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ON

PROPOSED FERC RULEMAKINGS CONCERNING THE PUBLIC UTILITY REGULATORY POLICIES ACT AND THE INCLUSION OF INDEPENDENT POWER PRODUCERS IN COMPETITIVE BIDDING PROGRAMS

FEBRUARY 1, 1988

TESTIMONY OF THE HONORABLE EDWYNA G. ANDERSON
ON BEHALF OF THE
NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Chairperson Johnston and Members of the Committee:

I am Edwyna G. Anderson, Commissioner of the Michigan Public Service Commission, a member of the Executive Committee of the National Association of Regulatory Utility Commissioners (commonly known as the NARUC) and chair of its Committee on Electricity. I am testifying today on behalf of the NARUC and am accompanied by the Chair of the NARUC Staff Subcommittee on Electricity, Michael A. Fielek, and the NARUC Director of Congressional Relations, John M. Flumerfelt.

The NARUC is a quasi-governmental, non-profit organization founded in 1889. Our membership is composed of the governmental agencies of the fifty states, the District of Columbia, Puerto Rico and the Virgin Islands which are engaged in the regulation of utilities and carriers. Our members, therefore, have a deep and abiding interest in federal regulatory policy as it affects state jurisdiction over retail electric rates.

On behalf of the NARUC, I appreciate this opportunity to comment on the proposed rulemaking proceedings which the Federal Energy Regulatory Commission (FERC) has been discussing for the last several months. Although the FERC has not yet issued details of its proposals to modify its rules under the Public Utility Regulatory Policies Act (PURPA), Chairman Martha Hesse and her staff have indicated the Commission's general thrust.

The NARUC is a diverse association with members necessarily concerned with activities in their individual states. Thus, my remarks are limited to subject areas where NARUC members share mutual concerns. Briefly, these concerns can be summarized as follows:

- Although the NARUC believes that PURPA has been successful in many ways, we support a fine tuning of the implementing rules by the FERC.

- State regulators are in the best position to balance the interests of utility ratepayers with the mandate of PURPA and must be offered the flexibility to apply the framework of the law to unique local circumstances.

- A full and open process of public hearings should be undertaken when the FERC issues its Notices of Proposed Rulemakings (NOPRs), and an extended comment period should be allowed so as to ensure a full discussion of specific issues by all interested parties.

- The FERC should act quickly to resolve bulk power transmission policy and access issues. It also may be timely for the Congress to examine jurisdictional questions related to inter- and intra-state wheeling.

These points are discussed in greater detail below.

PURPA Has Been Successful

Chairman Hesse, her staff and other members of the FERC have made great efforts to communicate with our members as to the status and substance of the FERC proposals. We sincerely appreciate these efforts and hope that this cooperative spirit will continue and be reflected in the substance of any regulatory changes, since state regulation and ratepayers nationwide will be directly affected by their outcome. The excellent experience which has been gained following the enactment of PURPA, as a result of its implementation on the state level, is an obvious benefit of our dual system of regulation.

It is our view that PURPA has thus far been a model of federal-state cooperation and has largely achieved its goals, i.e. the development of efficient alternatives to traditional utility-generated energy. This is not to say that the implementation of PURPA has been without problems. Rather, it continues to evolve.

Most importantly, PURPA has shown us that there exists a broad entrepreneurial interest in the development of non-utility sources of electric generation, and that competition can be integrated into a traditionally monopolistic industry -- to the benefit of our nation's ratepayers. Moreover, the relatively rapid development of Qualifying Facility (QF) power, and the potential for the increased development of not only QFs, but independent power as well, show us that certain economies of scale may no longer exist in the industry and that efficiencies may be found in a more decentralized market with a broader mix of supply options.

Congress's intent in enacting PURPA, in our view, appears to have been to reduce our national dependence on imported fuels through the development of a well-diversified energy base which takes into account not only economic efficiencies, but social and environmental considerations as well. In this regard, we note that, in some cases, it may be in the public interest to develop energy resources which initially, at least, result in costs to the ratepayer in excess of actual avoided cost. For example, waste-to-energy projects in certain areas might deserve such treatment. Such projects, it is hoped, could ultimately provide a levelized price lower than avoided cost, and might certainly provide other economic and social benefits. We urge that any revision to PURPA be consistent with the spirit of the statute in this regard and not restrict the abilities of state and local decision-makers to address local considerations with creative applications of federal law.

Congress deserves a great deal of credit for originally establishing PURPA as a state-run program. State regulators appreciate and respect the guidance of federal policy-makers, and we would hope that in turn the FERC will continue to respect the need for states to retain the flexibility and independence necessary to tailor complicated regulatory principles to their specific local economies. The role of states as laboratories in the regulatory process cannot, we hold, be overemphasized.

States Need Flexibility

State Commissioners' reactions to the FERC proposals have varied. There is, however, a strong consensus that, although a "fine tuning" of the PURPA regulations may be appropriate and advantageous, the FERC should take no action which would restrict state flexibility under the Act or mandate specific means of setting avoided cost rates. Many of our members, therefore, feel that much of what FERC wants to accomplish can be achieved without recourse to formal rulemaking proceedings.

It remains a fundamental principle of the NARUC that those who are in the best position to balance the interests of utility ratepayers with the mandate of PURPA should be afforded the freedom to apply the framework of the law to unique local circumstances. State regulators are best situated to carry out this responsibility. Accordingly, we are opposed to a national approach to implementing PURPA.

The fact that non-utility power production has met with varying degrees of success in different states does not of itself indicate that a nationally uniform approach is required. If the FERC itself were to set avoided cost rates, or require restrictive criteria for state establishment of such rates, retail customers in jurisdictions having avoided costs less than the national average could, in effect, subsidize QF development in other areas without accruing any benefits for themselves. Rather, allowing states to implement federal policies in a flexible manner produces a richness of alternative, responsive solutions to a wide variety of problems, many of which were not (and indeed cannot be) foreseen by legislators and promulgators.

Accordingly, we believe there is no role for the FERC in the development of QF power production beyond continuing to provide technical assistance to the states in calculating avoided cost methodologies, and clarifying whether innovative state approaches (such as competitive bidding) are consistent with the established statutory and regulatory framework.

With respect to inclusion of a new class of "Independent Power Producers" (IPPs) in competitive bidding procedures, i.e. "all source" bidding, the proposals clearly imply a fundamental restructuring of the nation's electric power industry. Although this may reflect a direction in which the industry is already inexorably headed, we are wary as to whether the many questions which are raised can, or should, be resolved via the rulemaking process or within the timeframe allowed by the imminent shift in federal administrations.

We do not, however, wish to appear antagonistic toward such proposals. If state commissions are given sufficient leeway to address the complexities which would arise under the scenario of a competitive, virtually deregulated generating company or "genco" sector, the inclusion of IPPs in the framework of competitive bidding for new supply may be workable and advantageous. State implementation of PURPA has proven to be extremely flexible and, to a large extent, a self-correcting process. In instances where increased QF production has been disadvantageous to ratepayers, state commissions have been quick to respond by reevaluating their avoided cost formulae. (This, in fact, is the origination of competitive bidding procedures.) However, if bulk power arrangements between IPPs and purchasing utilities are subject to relaxed FERC regulation, and simultaneously exempted from state oversight by Supreme Court law requiring state regulators to allow full recovery of FERC-approved wholesale rates in retail utility rates,(1) ratepayers must be significantly assured that competition will indeed protect their interests.

Competition alone, however, is not a guarantee of either price or service, as the deregulation of airlines and telephone service clearly demonstrates. Neither is there a guarantee that there will be competition in all markets. Therefore, the burden of proof as to whether this restructuring will ultimately benefit the ratepayer lies squarely upon the shoulders of those who propose such changes. Perhaps before proceeding with a national experiment on the IPP proposal, state competitive bidding programs now in operation should be more fully evaluated, and the reliability questions surrounding non-utility generation should be more adequately tested.

Energy supplies are not a discretionary commodity. Rather, they may be viewed as part of the national infrastructure. Economic efficiencies in the industry are a priority but the many non-price factors involved in the supply of electrical energy require due consideration and represent a component of electrical service whose value may, or may not, be adequately represented (or priced) within a "free market." Moreover, we will probably never have a completely competitive industry from generation to distribution, and we are only just beginning to see the development of truly "workable" competition in the generating sector. Therefore, in the evolution toward a more substantially competitive environment for electric generation, caution, informed debate, federal-state cooperation, and an incremental approach are necessary. Whether the FERC proposals will recognize these principles remains to be seen, pending review of the specific language which is developed.

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(1) This precedent is commonly referred to as the "Narragansett Doctrine". See Narragansett Electric Co. v Burke, 119 R.I. 559, 381 A 2d 1358 (1977), Cert. denied, 435 US 972, 56 L Ed 2d 63, 98 S. Ct. 1614 (1978); and Nantahala Power & Light v Thornburg, 90 L Ed 2d 943, 106 S. Ct. 2349 (1986).

With respect to competitive bidding as a means of establishing avoided cost rates for QF power, it is clear that this is an issue whose time has come. In fact, it is estimated that approximately ten states now engage in or have proposed competitive bidding rules for the purchase of QF power. Although this by no means represents a majority of the states, it probably does represent states in which a majority of new QF capacity has been or will likely be proposed. Many other states are watching closely those in which such programs have been implemented and it is apparent that we are seeing only the beginning of what will be a major trend in state regulation vis-a-vis QF power.

By clarifying the lawfulness of such programs under PURPA, the FERC would greatly assist the states' ability to develop flexible policies which can adequately address local needs and conditions with respect to an increasingly complicated energy marketplace. Chairman Hesse has stressed publicly that competitive bidding should be a voluntary approach which allows as much flexibility as possible for the states in fashioning workable bidding systems, adding (in her NARUC Convention remarks) that, "[n]othing in the proposal would alter the states' traditional responsibilities regarding certification of the utilities' need for new capacity, environmental and siting regulation, and prudence reviews of utilities' power purchases." We support this voluntary, flexible approach.

The NARUC is also supportive of the idea that the FERC should authorize solicitations for energy conservation, i.e. energy savings, in its competitive bidding initiative. There is a vast remaining potential for energy efficiencies in the U.S., and the development of a potential market for energy services companies, whose product is "nega-watts," rather than mega-watts, is exemplified in Maine, where competitive bidding rules allow for such entrepreneurs to compete head-to-head with proposals for additional capacity. Thus far, the Maine system indicates that conservation is cheaper than avoided cost by half. Clearly, such a development is the epitome of the spirit of PURPA and an example of a creative state application which is in the national interest.

Hearings Should Be Held on The Notice of Proposed Rulemaking

If rulemakings are to take place, we respectfully urge that additional hearings on this subject be held after the rulemakings have been duly noticed and reviewed. Since these proposals have profound implications relative to the future of our nation's electric power industry, and are likely to raise many difficult questions pertaining to the fundamental structure of the electric power industry and the import of that for federal and state regulatory jurisdiction, all interested parties should have the opportunity to participate. To date, all discussions have been general, addressing only broad policy considerations. Ten years of state regulatory experience in these matters should be reviewed in the context of specific proposals. An extended comment period of at least 60 days is recommended.

Transmission Issues

Rather than focusing on issues pertaining to the generation of electricity, which, traditionally, have been a matter of state jurisdiction, the FERC should first address transmission. Interstate electric transmission is an area where the federal government has the greatest role and where the system needs the most help. Increasing competition among non-utility sources of supply can reduce utilities' monopoly powers, but such initiatives would not reduce their monopsonistic character, thus leaving an incomplete equation which may not only be inefficient, but dangerously anti-competitive. We urge that the FERC act quickly to resolve bulk power transmission pricing issues and further urge that states be given the authority to regulate intrastate wheeling, allowing the nation to reap the same benefits that we have seen with the implementation of PURPA.

We would also ask the Congress to consider a review of state and federal regulatory jurisdiction over transmission to see if the roles of these regulatory bodies can be clarified. Although the U.S. Supreme Court has ruled that there is a "bright line" of jurisdiction between inter- and intra-state electric transmission, the recent initiatives at the FERC may tend to dull that bright line.

Conclusion

The NARUC recognizes the need for the FERC to address the issues of competitive bidding and avoided cost, but questions whether formal rulemaking is necessary to sanction programs where hands-on experience is already being gained in a number of states. Competitive bidding and specific formulae for establishing avoided cost should not be mandatory, nor should they restrict the ability of state regulators to fashion solicitation programs appropriate for their regions.

We further recognize that increased competition in electric generation may be possible and advantageous through the integration of independent power producers. The FERC might thus appropriately explore, and possibly even promote, the development of independent power producers and their participation in a competitive bidding process. There are, however, many difficult questions that first must be resolved, not the least of which is the transmission issue.

We therefore urge that a measured approach be followed, and that transmission issues be addressed simultaneously, if not prior to, consideration of IPPs in an all source bidding proposal. We also seek a granting to the states of regulatory authority over intrastate wheeling.

Competition, when structured properly, offers many benefits. It is not, however, simply conferred by the magic wand of a federal or state agency. Increasing competition in an historically regulated industry characterized by monopolistic and monopsonistic entities requires careful evaluation and monitoring. This can best be done at the local level by those who are able to fine tune the process as it evolves. That process has already begun in state laboratories across the nation.

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The CHAIRMAN. Thank you very much, Commissioner Anderson. Commissioner Keegan.

STATEMENT OF ROBERT J. KEEGAN, COMMISSIONER, MASSACHUSETTS DEPARTMENT OF PUBLIC UTILITIES

Mr. KEEGAN. Thank you very much, Mr. Chairman, Senator Ford. I appreciate the opportunity to be here and participate in these hearings, which I think are very timely and provide an important forum in which to have a fuller discussion on issues that are very important, I think, to the national interest.

Section 210 of PURPA was enacted by Congress to promote the development of cogeneration of small power production resources. I believe Congress also intended to improve the overall operating efficiency of the electric utility industry in enacting PURPA.

The implementation by State regulators of the avoided cost standard contained in section 210 has, over the past eight years, I think, provided mixed results that were previously referred to by Chairman Hesse.

Some states, indeed, implemented PURPA in such a way as to overencourage these resources to the point that uneconomic facilities were developed, increasing costs to consumers, while on the other hand some states failed to provide sufficient incentives or economic incentives, and ratepayers have been deprived of the power from economic sources of generation.

Despite these mixed experiences, it is important to note the small power production and cogeneration resources are playing an increasingly important role in meeting the Nation's energy needs.

I believe the importance of these resources has grown because of fundamental changes in the underlying cost structure of the generation segment of the electric power industry, changes which Commissioner Stalon referred to in his testimony.

As utilities have increased the size of their generation stations, economies of scale have become exhausted, and competition in the industry has developed to an unprecedented degree.

The increasing role being played by PURPA facilities requires more than ever that these resources be integrated more fully into electric utility planning and procurement strategies, and I believe the competitive bidding systems offer the opportunity to do just that.

They offer the opportunity to remove the planning uncertainties associated with these supplies, and they also offer the opportunity to improve on the pricing mechanisms so as to insure that only efficient sources of power are paid economically efficient prices for their generation consistent with a least cost planning and procurement strategy.

Third, they offer the opportunity to capture a portion of the potential cost savings resulting from the development of these resources for consumers. I believe the competitive bidding does provide a very accurate means of estimating a utility's avoided cost and is entirely consistent with both the letter and the intent of PURPA legislation.

Let me just for a minute indicate that in Massachusetts, approximately two years ago we began to implement a competitive bidding system. That competitive bidding system is, in fact, one means by which qualifying facilities are able to sell or to sign long-term contracts with utility companies.

Qualifying facilities also have two other means of entering into arrangements with utilities. They can sell on the short run as available avoided cost basis, or they can go into a privately negotiated contract with the utility. Those are two other processes that we have ongoing at the same time that we are running a competitive bidding system.

So I do want to point out that the competitive bidding system in Massachusetts is only one of three means available to qualifying facilities to sell power to an electric utility.

Essentially, we believe that the competitive bidding system provides a very important means of determining what the best resource is to fill a particular utility's individual capacity need.

Annually under the Massachusetts systems, each utility is required to put out a request for proposals to fill a certain supply block. That request for proposals specifically includes the price at which the utility would proceed were it to build its own generation or sign a purchase power contract with another utility to meet its needs in the year in the future that it will require additional capacity.

That request for proposals also includes significant nonprice criteria that the utility believes is very important to its overall generation source requirement.

The CHAIRMAN. Let me interrupt you at that point.

In effect, the utility has to show its hole card before the bidding process?

Mr. KEEGAN. In our system, that is correct.

The CHAIRMAN. Is that fair, or should they not be able to, if they are going to have a bidding, hold their bid back to let the others——

Mr. KEEGAN. I think that we are in an evolutionary market where we are attempting to gather more information about the level of competition that is out there in the marketplace. Until we gain that additional information and make a determination that the marketplace is sufficiently competitive, then we have concerns about merely turning the utility loose.

If, I think, there is significant source of competition out there and we can rely on that competition and those market forces to control the prices, then down the road it may be appropriate to allow the utility to participate on a sealed bid basis.

Our feeling at this time is, however, that we do not have the information and have not become convinced yet that the marketplace is sufficiently competitive to allow market forces to play that role.

We have, therefore, required utilities to initially demonstrate what their optimal planning strategy would be, indicate how they would meet their capacity needs, and put that avoided cost determination in the request for proposals and have other sources, qualifying facilities, bid against that bid.

The CHAIRMAN. Of course, if they are above, they are automatically excluded.

Mr. KEEGAN. That is correct.

The other important component, I believe contained in the request for proposals under the Massachusetts system and under several other State systems is the inclusion of nonprice criteria, so that a utility will look at its own system, determine what level of reliability, whether or not it needs dispatchible facilities, can even look at what its own fuel mix is, and give a certain weighting to one fuel source versus another.

The CHAIRMAN. Have you, by the way, had any trouble defining reliability as part of this process?

Mr. KEEGAN. I think that the issue of reliability for us has really come up in terms of the contracts that end up as a result of this bidding process where the utility contains in the contract certain reliability criteria, that the unit be there at a certain point in time.

Otherwise, the qualifying facility is not paid for its output, the unit is not in rate base so that the qualifying facility is not receiving any money unless it is on line and available, and some contracts can contain penalty provisions if the unit is not there and available when it is needed.

So I think the contracts do, in fact, contain certain reliability and economic penalties for the failure to be there when needed.

But, in short, I think that that type of a system that has request for proposals that include both price and nonprice criteria give individual utilities the ability to look at their systems, their specific needs on their systems, and develop a request for proposals that will generate those projects that it feels will integrate into its overall system readily.

I would only say that I think each individual utility system varies significantly, so the degree to which individual utilities weigh different price and different nonprice criteria is very different.

When we look at the seven utilities in Massachusetts participating in this process, the degree to which they have weighted certain nonprice criteria have varied significantly, and we are gaining more experience as this process evolves into how important these nonprice criteria are to individual systems and what those systems look like and what the characteristics of each system are that make one nonprice criteria more important than another.

I would only indicate that our initial experience with this type of system has been very positive. Boston Edison Company put out a request for proposals approximately a year ago, where it was seeking 200 megawatts of additional generation by the year 1991. It received proposals from 62 different projects, bidding approximately 1,847 megawatts of generation.

It selected out of those 62 projects nine projects, entering into contracts equaling 340 megawatts. The average price under those contracts was approximately 61 percent of the utility's forecasted avoided costs.

Our feeling was that the competition that we saw in that process will, in fact, provide significant ratepayer benefits.

I would indicate only one of those projects, equaling more than half of the total being contracted for, was a 200 megawatt coal-fired facility to be sited on one of five alternative sites in New England. There was a fairly good diverse mix of resources, both bid and selected in that process.

The implications and potential of competitive bidding systems go well beyond simply the supply under PURPA situations. Those competitive bidding systems must be evaluated in the context of an improved regulatory framework, susceptible to integrating least cost planning concepts in a way which recognizes and responds to the fundamental cost changes which have occurred in the industry.

I believe that FERC, based on the statements of Chairman Hesse and some of the other commissioners, recognizes this potential and is attempting to develop policy initiatives which maximize the benefits which can be achieved by implementing competitive bidding systems.

In general, I applaud the efforts of FERC and the initiatives that they have taken both to go into the three NOPRs concerning improving the administrative determination of avoided cost, the use of competitive bidding systems, setting minimum requirements for states, and also looking at the role that independent power producers can play in this entire process.

I do, however, have grave concerns over any attempt by FERC to mandate any specific type of competitive bidding system or to require that if a bidding system is implemented it must be an all-source competitive bidding system.

An all-source competitive bidding system, as I indicated to your previous question, Senator, implies that there is a sufficiently market to rely on competitive forces to regulate prices. The existence of a level of competition sufficient to allow all players to participate equally has not been demonstrated, and various players may still be found to possess sufficient market power to affect the results of a competitive bidding system.

Also, self-dealing is a significant potential abuse of all-source competitive bidding systems.

I believe we are still in an evolutionary stage in the development of competitive bidding systems, and, although we may eventually get to an all-source system, it is premature at this time to mandate such a system.

States should continue to be given the flexibility to develop systems which are responsive to the needs in their individual states, and no rigid type of billing system should be imposed by Federal regulators at this time.

I would indicate that in the first 10 years of states attempting to implement PURPA as it has existed, the states have come up with a wide variety of approaches, and as we looked at modifying the regulations that we had two years ago we gained a tremendous amount of information from the experiences of all 50 states.

I would only indicate that of the 10 states that Commissioner Anderson referred to that have begun to implement bidding systems, when you look at those systems they are very, very different. I think that states are looking at the bidding systems in other states in attempting to improve on them and modify them to respond to what their particular needs are. I think that kind of experimentation is important.

Other states have consulted with Massachusetts and are making changes that, frankly, I think will improve the system in Massachusetts. I only say that it is an evolving process, one where the states need flexibility to continue that evolution, and we can learn from that experiment.

That is why I am here to oppose any specific, rigid guidelines for FERC to set down, but I am encouraged by FERC's statements that they do not intend to establish that kind of a rigid system, that they intend to establish certain minimum guidelines. Until we see the results of that NOPR, however, I still want to express that concern.

I would also just briefly like to support the initiatives that they are taking with respect to independent power producers.

When we look at the system in Massachusetts, it is currently limited only to qualifying facilities. I personally think that there may be many economic and efficiency benefits that we can derive out of expanding that market to include independent power producers and that they can bring greater efficiencies to the process and that we should not limit the benefits available from this kind of a system only to qualifying facilities.

I think there are methods, if appropriate in an individual state, to expand any competitive bidding process to independent power producers, and I support FERC's efforts to reduce the regulatory barriers currently limiting IPPs from participating.

There do continue to be two important barriers which I think will limit the role that IPPs can play, and they go to some of the provisions contained in the Public Utility Holding Company Act that I think has to be looked at very carefully, because the role that IPPs and the amount of IPP participation in the process can, in fact, be limited significantly by some of the provisions contained in the Public Utility Holding Company Act. It really does affect the way in which corporations form and partnerships form in the development of these independent power producer proposals.

The second major barrier, I think, is the uncertainty currently surrounding access to transmission and wheeling as well as certain pricing issues.

I am encouraged by FERC's indication that they intend to move ahead. I support Commissioner Stalon's efforts to not at this point look in any way at retail wheeling but to focus on wholesale wheeling from certain generation sources into utility service territory. That component is important to address.

The CHAIRMAN. Do you have the power at the State level to order that wheeling?

Mr. KEEGAN. That is an issue of uncertain legality. I think from my perspective, we do not contest FERC's right to establish wheeling rates. There is some uncertainty over who may have the authority to compel wheeling.

In our regulations, we have required utilities who are not purchasing or signing long-term contracts with certain qualifying facilities to wheel that power out of their service territory to other service territories, so that a qualifying facility that is not selected in the bidding process will be able to get their power out to another service territory.

I think the reason why we try to exercise that jurisdiction is because the size of the qualifying facility market participating in a bidding process becomes very important. If you limit the available resources in a request for proposal only to those facilities in an individual service territory, you are really limiting the size of that market, and you are limiting the magnitude of the competitive market forces participating.

The Chairman. Is there any question that you ~~or~~ FERC could make as a condition of acting as a competitor, as an IPP, that you allow wheeling if you lose?

Mr. Keegan. I believe we have that jurisdiction.

The Chairman. Do you think you have it even without FERC putting that as part of their NOPR?

Mr. Keegan. That is the position I would take; however, there is significant uncertainty to that particular issue. So I think it would be desirable to obtain a clarification of that, certainly.

We have gone ahead and indicated an effort to exercise that jurisdiction. That has not been challenged as yet.

The Chairman. Do the utilities strongly support that position?

Mr. Keegan. I would be reluctant to characterize the utility position in that regard.

Let me say in New England where we operate on a centrally-dispatched regionwide power pool where transmission occurs very frequently, utilities are very used to these kind of economy interchanges and transmission. So I think it has been less of a problem in New England than it may be in other regions of the country.

So utilities in New England, I believe, have cooperated where possible as much as they can in that regard, but I think some clarification would certainly be helpful to other states.

In summation, let me say that as a State regulator, my concerns and efforts are directed toward insuring that Massachusetts has an adequate supply of reliable power to meet consumers' needs at a reasonable cost.

I believe that the competitive bidding system we have adopted in Massachusetts and those adopted elsewhere which differ help to insure that we can achieve that goal.

I am encouraged after hearing Chairman Hesse's testimony before this committee that FERC does not intend to act in a way which will infringe on the ability of the states to continue to experiment and to improve on competitive bidding systems.

I am also encouraged by her statement that FERC intends to undertake to address the extremely important issues associated with transmission, pricing and wheeling access. These are the issues which are affecting the bidding process implemented by states and which need to be addressed.

Again, I wish to thank the committee very much for the opportunity to testify.

[The prepared statement of Mr. Keegan follows:]

BEFORE THE UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

Oversight hearing on proposals pending before the
Federal Energy Regulatory Commission

Testimony of Robert J. Keegan, Commissioner
Massachusetts Department of Public Utilities

ABSTRACT

The use of competitive bidding to determine a utility's avoided costs for the purpose of establishing prices to be paid to qualifying facilities under PURPA, represents a positive alternative to the administrative determination of avoided costs. Competitive bidding results in a more rational and efficient allocation of payments to qualifying facilities. In addition, bidding systems capture the efficiencies and employ the discipline of competitive market forces to maximize the ratepayer benefits available from these supply sources.

Competition is developing in the generation segment of the electric power industry not only because of PURPA, but because of fundamental changes in the underlying cost structure of the industry. Competitive bidding systems offer state public utility commissions an opportunity to evaluate the degree to which a competitive market for electric generation can be developed and relied on to ensure least cost planning and procurement of electric supplies. Competitive bidding offers a workable framework which can be expanded to allow for the consideration of the relative economics of supply and demand strategies which compete with PURPA supply sources. In this regard the recent action on the part of FERC to examine ways of reducing regulatory barriers currently limiting non-qualifying facility participation in competitive bidding systems is a positive initiative.

While it is correct that additional efficiencies can be gained from participation of independent power producers in competitive bidding systems, FERC should not attempt to impose standardized requirements for states implementing bidding systems. It is essential that states continue to have the flexibility to fashion bidding systems which appropriately respond to and reflect the dynamics of the markets which develop in the service territories of each electric company. A FERC imposed all-source bidding system would seriously undermine competitive bidding experiments currently being conducted in several states and deter other states from implementing more moderate bidding systems appropriately constrained to reflect the level and type of competition being experienced in those states.

BEFORE THE UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

Oversight hearing on proposals pending before the Federal Energy Regulatory Commission

Testimony of Robert J. Keegan, Commissioner
Massachusetts Department of Public Utilities

INTRODUCTION

Section 210 of the Public Utilities Regulatory Policies Act of 1978 ("PURPA") was passed by Congress in an effort to remove institutional and regulatory impediments facing the developers of cogeneration and small power production facilities who desired to sell electricity to public utility companies. Under Section 210, a facility ("qualifying facility", or "QF") that meets the qualifying criteria established by the Federal Energy Regulatory Commission ("FERC") pursuant to PURPA is exempt from classification and regulation as a utility. Public utilities, in turn, are required to purchase electricity from QFs. In addition, PURPA requires that the price applied to such purchases must be just and reasonable to the customers of the purchasing utility and may not discriminate against small power producers and cogenerators. Specifically, the price prescribed may not exceed "the incremental cost to the electric utility of alternate electric energy." 16 U.S.C. 825a-3.

Based on the experiences of the 1970's there was ample justification for the passage of PURPA. The United States, having just witnessed a severe energy crisis, was faced with a clear reluctance on the part of electric utilities to deal fairly with cogenerators and small power producers. Congress, noting the potential gains in efficiency available from a better integration of QF supplies with traditional utility supplies, enacted in PURPA a mandatory framework for such coordination.

A key provision of PURPA was a reliance on individual state public utility commissions ("PUCs") to prescribe specific standards, within Federal Energy Regulatory Commission ("FERC") guidelines, that would be applied to determine the prices and terms and conditions that would hold for transactions between utilities and QFs. The early experience of state PUCs in implementing the requirements of PURPA and administratively determining avoided cost prices has provided mixed results.

Some PUCs adopted avoided-cost rules and standard contract provisions so favorable to QFs that a veritable flood of contracts swamped the utilities. As typified by California, such approaches made it virtually impossible for utilities to integrate QFs into their supply planning processes. These approaches also left the ratepayers of those states as the guarantors for clearly uneconomic QF projects.

Other PUCs adopted approaches so conservative that PURPA had virtually no impact on power planning in their states. In Massachusetts, for example, PURPA regulations adopted in 1981 basically institutionalized prior difficulties encountered by QFs in negotiations with utilities. Those rules failed to

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recognize the dominant bargaining power of a utility in a one-to-one negotiating session with a QF located in its service territory. As a result, ratepayers in that state failed to obtain many of the efficiency advantages that might otherwise have been offered by QFs.

Based on these early experiences, a number of states have revised their approaches to PURPA. This process has given birth to a second generation of PURPA regulations. The PUCs instituting such revisions have benefited from the experiences of the late 1970's and early 1980's. In general, the new regulations show a greater level of sophistication on the part of the PUCs in integrating QF supplies into the overall utility planning process. Equally important, such regulations tend to incorporate a more market-based approach, one that is designed to result in a greater level of benefits to ratepayers than earlier administrative approaches.

PURPA ACCOMPLISHMENTS

Despite these early implementation difficulties, PURPA has resulted in a number of significant accomplishments. PURPA has succeeded in opening the electric generation market to a variety of non-utility providers. It has in many instances overcome the monopsony power of electric utilities and given PUCs as well as the industry invaluable experience in attempting to integrate non-utility supplies into the overall mix of electric generation. In addition, the avoided cost standard has resulted in an increased familiarity with value of service pricing principles and efforts to approximate the market clearing price which would be derived in a truly competitive market for electric generation.

The amount of competition which electric utilities have seen develop from QFs, however, has not resulted from PURPA alone. Competition has developed because the generation segment of the electric utility industry has undergone fundamental changes in its cost structure. Escalating costs for the construction of large central generating stations, combined with reductions in fossil fuel costs, have undermined the strategy of substituting capital for fuel and deprived many utilities of their traditional role of being the least-cost provider of electric service. The economies of scale associated with generating electricity which the industry had succeeded in capturing for decades, appear to have been exhausted as the size of central generating stations has increased to the 1,000 megawatt range. Meanwhile, technological advances in generating electricity efficiently in smaller quantities and in smaller facilities has made electric generation from non-utility providers more attractive and competitive.

Escalating electricity prices have also made investments in conservation and load management more economically attractive than before. In addition, state PUCs have recognized the need to send price signals which more accurately communicate on a time differentiated basis the real cost of electric service. This has resulted in the development of rate structures which rely more on marginal costs than embedded costs.

These fundamental changes in the electric industry have contributed significantly to the increased role which QFs are playing in meeting our nation's electric needs. As the proportion of electricity from these non-utility suppliers increases it becomes more important to ensure that they are fully integrated into a coherent utility planning and procurement strategy. Therefore, state PUCs have begun to focus on regulatory changes which will promote an integrated supply and demand planning and procurement strategy by electric utilities that will result in the development of a least cost means of meeting electric service requirements. It is within the context of the increasing array of competitively priced supply and demand options for meeting electric needs, and not just the limited context of PURPA, that competitive bidding systems and FERC's recent initiatives in this area need to be evaluated. This analysis must also be made in the context of the potential that competitive bidding systems have for bringing the efficiencies that derive from competitive market forces to the process of choosing between these options.

THE MASSACHUSETTS BIDDING SYSTEM

On August 25, 1986, following eighteen months of hearings and investigation, the Massachusetts Department of Public Utilities ("Department") adopted final regulations implementing a competitive bidding system for establishing eligibility of small power producers and cogenerators to enter into long term contracts for the sale of their electrical output to electric utility companies. See Attachment I, D.P.U. 84-276-B. These rules, codified in 220 C.M.R. 8.00, were promulgated by the Department pursuant to Sections 201 and 210 of Title II of PURPA.

In the Department's investigation concerning appropriate modifications to its initial regulations implementing PURPA, the following objectives for establishing an appropriate wholesale price structure were identified and explicitly set out in an interim order issued on September 12, 1985 in D.P.U. 84-276:

- optimization of the electric industry;
- consistency between utility pricing policy and non-utility pricing policy;
- matching investment risks and investment rewards;
- elimination of nonprice barriers to development; and
- simplicity of wholesale price structure.

The competitive bidding system established by the Department was designed with the intent of fulfilling these objectives.

Under the new rules, each jurisdictional retail electric company is required to issue annually a request for proposals ("RFP") indicating the amount of capacity and energy ("supply block") it is interested in purchasing from QFs under long term contracts. The amount of capacity and energy which a utility is required to put out for bid each year must be equal to five percent of the utility's peak demand in the previous year, or its actual need for new capacity, whichever is larger. The calculation of this supply block must be based on the utility's optimal demand and supply plan for a twenty year period.

(7)

In addition to specifying the amount of capacity and energy being solicited, each RFP must include the utility's avoided cost and indicate the degree to which specific non-price criteria will be relied on in selecting the winning proposals. The avoided cost calculation of each utility will include, where applicable to a utility's specific situation, a long-run energy cost component, a capitalized energy cost component, and a long-run capacity cost component. These cost components are to be derived on the basis of a utility's optimal resource supply plan. The long-run energy cost component must be supported by production cost calculations for the twenty year planning horizon. Capitalized energy cost projections are to be derived on the basis of the difference between the projected capital cost of a peaking facility and the cost estimates for potential investments in new generating facilities, conservation and load management measures, and long-run power purchases. Long-run capacity costs are to be calculated according to the levelized real revenue requirement of a utility peaking plant excluding fuel costs and variable operating and maintenance expenses.

The utility's calculation of its avoided costs will result in a ceiling price against which QFs will bid. The ceiling price will contain a peak and off-peak time-differentiated energy rate and, if the utility anticipates a need for new capacity in the near future, a capacity component. If there is no anticipated need for additional capacity during the planning horizon, the avoided cost will be based on an estimate of the time-differentiated value of displacement energy only. While QFs are competing against the ceiling price developed by the utility from its avoided cost calculations, they are also competing against each other in the bidding process.

The RFPs issued annually by utilities are also required to specify any non-price criteria (e.g., dispatchability, location relative to load centers, level of progress in obtaining permits, etc.) which the utility will be evaluating in selecting winning proposals. The RFPs must also indicate the relative importance which will be attached to each non-price criteria. Thus, bidding QFs will be able to estimate prior to the submission of their proposals the score they will receive pursuant to the ranking formula contained in the RFP. The ranking formula proposed by a utility must recognize continuous trade-offs in net ratepayer benefits between the various measurable criteria used to score QF proposals. The ultimate goal of a utility's ranking formula must be to maximize net benefits to ratepayers. All RFPs are required to be submitted to the Department for approval based on a review and evaluation of the supply block, avoided cost calculations, and ranking formula for both price and non-price criteria.

Under this scheme, the winning bidders in the solicitation will have the right to enter into long-term, fixed-price standard contracts with the electric utility. The selected bidders also have an obligation to make a modest "earnest money" payment of $15 per kilowatt of installed capacity at the time they sign the contract. This money is forfeited to the utility under a schedule set forth in the regulations if the QF is unable to meet its contractual obligations.

The Massachusetts regulations are designed to carry out the purposes of PURPA by creating an environment which will stimulate the development of QFs, while protecting ratepayers from paying an excessive amount for QF power. This approach undertakes to integrate the development of QF power into the utility's planning process by requiring an annual solicitation based on the utility's actual need for power. The annual review will also allow the utility to compare the amount of QF capacity contracted for in previous years with the amount actually delivered, permitting a refinement to each successive year's solicitation. It is further designed to encourage competition among QFs, bringing to ratepayers the advantages of a market-based price.

ADVANTAGES OF COMPETITIVE BIDDING SYSTEMS

The market-based approach to PURPA adopted by Massachusetts, and variants of this theme developed by other states, may have major ramifications for other aspects of public utility regulation. For example, many state PUCs are reviewing the rules under which utility-owned generation will be treated in the future. Such examinations encompass fundamental issues concerning the role of regulation in utility power planning, the rights and obligations of public utilities in serving the public, and the rights and obligations of consumers of electric power. Ultimately, what is to be decided in these reviews is the form of the social contract between the public and the serving utilities.

In such analyses, PUCs are looking at the possibility of a more market-based ratemaking standard for utility-owned generation. See, for example, Attachment II, Electric Generation, Mass. DPU Docket No. 86-36 (April 1987). Such an approach would place a greater share of the risks and rewards of utility generation investment on the utility managers and, ultimately, on the utility shareholders. It could thereby solve many of the problems of perverse incentives inherent in rate base regulation.

An underlying assumption of proposals to expand the competitive bidding experiments being conducted by PUCs into all-source bidding systems, is that utilities or independent power producers ("IPPs") do not have the type of market power that requires the current form of pervasive economic regulation. Deregulated rates for all-source generation based on a market-determined value or usefulness of investment requires the demonstrated existence of a sufficiently competitive generation market to ensure an adequate supply of electricity available at a reasonable cost. Most observers would agree that, at present, the existence of a sufficiently competitive market for electric generation has not been demonstrated. Such a showing would be necessary before PUCs would be able to implement a ratemaking standard employing pure market rates determined solely by competitive bidding.

(11)

The states' experiments with more market-based approaches to PURPA, however, can be viewed as a first step in the development of a competitive electric generation market. As the states gain more experience with the implementation of the type of PURPA regulations discussed here, they will be able to conclude whether there exists a potential competitive market for electric generation. If so, the current form of regulation of electric utility investments can be expected to change dramatically and all-source competitive bidding, incorporating IPPs and conservation and load management initiatives, may become a reality. If, however, natural monopoly characteristics of scale economies and barriers to market entry reemerge in electric generation, then the expansion of competitive bidding systems beyond their current limited PURPA role may be clearly inappropriate or undesirable.

The competitive bidding experiment for QFs being conducted in Massachusetts offers the opportunity for the PUC to evaluate the nature and characteristics of the market for electric generation. It must be clearly understood, however, that this effort represents an experiment designed to elicit additional information before expansion of the system for other uses is considered appropriate. The system has therefore been designed with a number of protections which we view as critical at this point in the experiment.

It requires utilities to develop plans for how they would intend to meet their obligation to serve over an appropriate planning horizon and then requires them to test the relative economics of their solutions in the market through competitive bidding. The utility continues to bear the obligation to serve and if the bidding system reveals that the utility's proposal represents the least cost approach to meeting its obligation then the utility would proceed with its plan. The ratemaking treatment applied to such utility projects could be based on cost of service principles or rely more on a market-based approach for setting prices based on the results of a competitive bidding system.

It is also important to be able to adjust competitive bidding systems to ensure that they result in a desirable generation mix for each utility. The Massachusetts system attempts to accomplish this by allowing each utility to establish specific technical criteria in its RFP so that the utility can exercise a degree of control over how it meets its obligation to serve. In the first round of RFPs submitted to the PUC in Massachusetts, there were significant differences in the weight given different technical criteria based on the system profile and needs of individual utilities. It is important that states be able to retain the flexibility to implement and adjust bidding systems which appropriately respond to the specific circumstances encountered in each state and by each utility company.

The requirement that RFPs contain the specific technical criteria being considered and the degree to which they will be weighted and relied on in the final selection process is extremely important to the success of the Massachusetts bidding system. This requirement makes the solicitation and selection process open and reviewable by all parties and minimizes the suspicions concerning utility self-dealing.

RECENT FERC INITIATIVES

FERC has recently held a number of regional hearings to help it assess the current status of PURPA implementation and to determine whether modifications to its original PURPA regulations are either necessary or appropriate. At the hearing held in Boston, the Massachusetts PUC indicated the following:

> In general, we believe that the current PURPA regulations are adequate to carry out the purposes of PURPA in a manner that gives the state PUCs the discretion to experiment with alternative approaches that might provide greater benefits to ratepayers. Accordingly, we do not feel that any revisions to the regulations are required.

The Massachusetts PUC views its competitive bidding system as entirely compatible with the letter and intent of PURPA. It believes that the method of determining avoided costs through a bidding system has significant advantages over methods which administratively determine avoided costs. No changes in FERC's PURPA regulations, therefore, are necessary to continue to allow state PUCs to continue to refine their PURPA implementation strategies.

From recent statements by Chairman Hesse, however, it has become clear that FERC recognizes that PURPA must be integrated more fully into utility planning processes in a manner which is consistent with the fundamental changes in the industry's cost structure. FERCs indication that it seeks to lessen the institutional and regulatory barriers currently limiting the participation of non-QF IPPs in competitive bidding systems is a positive step. We see no reason why state PUCs conducting competitive bidding experiments should not be able, if they determine it appropriate, to allow IPPs to participate equally with QFs in such systems. The role which IRRs will play in the future electric generation market will, however, be limited unless restrictive provisions contained in the Public Utility Holding Company Act are eliminated or overcome and rules controlling transmission access and pricing for wholesale transactions are clarified. Nevertheless, we agree with Chairman Hesse that there are additional economies which the competitive bidding system can capture if it is extended to IPPs as well as other supply and demand options.

We are, however, concerned that FERC may intend to go further than simply removing the regulatory barriers to IPP participation in competitive bidding systems. Any action on the part of FERC which would mandate that state bidding systems be structured in a specific way will be detrimental to the further development of competitive bidding experiments. The states are making significant progress in developing systems which are tailored to the specific circumstances and characteristics of the markets emerging in the individual states and individual utility company service territories. It is essential that the PUCs continue to have the flexibility to adjust whatever system they implement in a way which responds to the markets they see developing. Any standardization of bidding approaches required by FERC at this time would have the seriously detrimental effect of constraining further experimentation in this important area and deprive regulators of the benefits of learning from the successes and mistakes of PUCs in other states. It is largely because of the experience gained from the different approaches used by the states to implement PURPA over the past eight years, both the mistakes as well as the successes, that we have come so far today. FERC should take no action at this point in the development of bidding systems which would limit the availability of information which will result from states seeking to develop ever better approaches to these issues.

We therefore encourage FERC in its efforts to allow states to expand their bidding systems to incorporate supplies from non-QF developers. Such efforts will provide states with the opportunity to test further the degree to which a viable competitive market for electric generation can be relied upon in choosing supplies and setting prices. It is essential, however, that FERC not presume that there is a single competitive bidding framework which is appropriate to implement in all states and in all situations. It must not restrict states using competitive bidding to adhere to rigid requirements. States need to retain the flexibility to implement bidding systems which ensure that their jurisdictional electric companies obtain supplies from appropriately sized facilities with the necessary diversity of fuel mix. States should also be left with the discretion to determine the best way to incorporate utility bids into any all-source competitive system. An essential provision of PURPA was reliance on the states to derive appropriate methods of implementing the requirements of PURPA. FERC should not at this time in the development of competitive bidding systems ignore that intent by limiting the types of bidding systems eligible for experimentation by the states.

FERC has indicated that following its consideration of competitive bidding systems it will proceed to address significant issues dealing with access to the transmission grid and the pricing of wheeling arrangements. These transmission issues as well as the need to bring a more market based approach to the pricing of bulk power transactions within power pools are areas over which FERC has exclusive jurisdiction and are in need of immediate attention. These are areas where, unlike competitive bidding initiatives, the states are preempted from acting and require action on the part of FERC. We are encouraged that FERC is committed to addressing these critical issues in the context of a comprehensive framework for regulating the electric power industry and we urge them to move to deliberations and resolution of these issues as expeditiously as possible.

The CHAIRMAN. Thank you very much, Commissioner Keegan. Chairman Lacy.

STATEMENT OF ELIZABETH B. LACY, CHAIRMAN, VIRGINIA STATE CORPORATION COMMISSION

Ms. LACY. Thank you, Mr. Chairman, Senator Ford. I, too, would like to express my appreciation for your addressing this very important issue.

Certainly, the ramifications of the development of the PURPA regulations go to the very heart of the quality of life in this country both on a personal basis and the economic life which our industries will enjoy on a domestic and international basis. It is an extremely important issue and one which we take very seriously in Virginia.

I also would like to thank you for asking a number of State regulators to address this panel. We are the ones, after all, who have to deal with the issues on a very real basis and, while the discussion about competitive bidding and various other ramifications of PURPA has been going on, we have had to take affirmative actions such as Commissioners Keegan and Anderson have already mentioned, in my own state.

So I think you will see that states are moving ahead, and we appreciate an ability to comment on this on a Federal level.

The Virginia State Corporation Commission generally supports the Federal Regulatory Energy Commission's overall approach in addressing the changes which are now occurring in the electric utility industry.

The FERC rules relating to PURPA as currently written do provide the states with broad latitude in implementing the statutory requirements of Section 210 of PURPA. However, a number of issues have surfaced that were not contemplated when the legislation rules were initially adopted. These issues are posing difficult problems in resolution.

We believe that in addressing these concerns, FERC should not attempt to resolve cogeneration and other third-party power issues for every state. Each state is in a unique position relative to cogeneration potential, capacity needs, generation mix and so forth.

The needs of each state are distinct, and State regulatory commissions are in the best position to assess those needs and to determine how to best capitalize on cogeneration potential.

Any new rules adopted by FERC should be in the form of a clear directive that economic cogeneration is in the Nation's best interest, and FERC should continue to allow the states to develop their own rules for implementing the intent of section 210 of PURPA.

I hope you will not think me parochial, but I would like to turn to the Virginia experience, because it perhaps can give you some very real insight into the types of problems which we are faced with at a PUC much like your own State PUCs and the fact that they must be resolved and hopefully in a wise and expeditious manner.

In Virginia, three of our five investor-owned electric utilities have already executed contracts for the purchase of close to 1,700 megawatts of capacity from 36 cogenerators and small power producers.

Our largest utility has over the last two years received offers of over 5,000 megawatts of capacity to be available by 1990. That is the framework within which our commission is operating.

We have completed two proceedings concerning future electric resources. Last summer we approved the construction by Virginia Power of a new generating facility called Chesterfield 7. Our second proceeding dealt with bidding as a mechanism for procuring new third-party capacity.

At first glance, these two proceedings and our responses may seem incompatible, but they are not. In the case of Virginia Power's proposed plant addition, there was no substantial controversy over the need for capacity, the timing of the construction, the reasonableness of the cost estimates, or the choice of technology.

The only pointed issue in this hearing was whether there were suitable alternatives to the proposed construction; specifically, power from resources other than the utility's own facilities.

Several factors influenced our decision, but one overriding principle was that it is and remains Virginia Power which has the legal obligation to provide adequate and reliable sources of power within its service territory. This does not preclude third-party power.

Indeed, by 1990 Virginia Power will obtain well over 1,000 megawatts of generating capacity from co-generation and small power production. This amounts to approximately 7.5 percent of its total capacity. Virtually all of the new power will come from cogeneration sources.

However, embracing third-party power to the exclusion of utility construction is not required by PURPA or our State law, nor is it desirable, in our opinion. It should be noted that although the state's cogeneration potential is large, it still exists mostly on paper. Utility construction provides a hedge against potential third-party supply problems.

In addition, most of Virginia's potential co-generation is of the gas-fired combined cycle variety. The experience gained by Virginia Power in operating a similar plant may better equip it to operate such co-generation units if it should become necessary under contract security provisions.

In fact, our decision to allow utility construction was premised on the expectation that third-party power would actually provide the bulk of incremental supply.

Our consideration of bidding was initially prompted by the need for a comprehensive review of the subject in the face of the fact that one of our utilities, again Virginia Power, was receiving offers of capacity which greatly exceeded its projected needs.

Our consideration did not result in formal rules such as Massachusetts. Instead, we offered guidance as to whether bidding is legally appropriate as a method for acquiring third-party capacity and how, in a very general manner, such bidding programs should be structured. We decided that bidding is legal under PURPA, although not required.

Considering the umber of legal briefs and amount of material we had to go through in reaching this legal conclusion, some prior official determination by FERC which we did not think would require a rulemaking proceeding would have been most helpful for the last year.

The type of bidding process we envisioned in Virginia can best be characterized as competitive negotiation. Using this term, we distinguished such a method from a sealed-price-only type of submission by potential suppliers. We believe that an emphasis on price only would be highly inappropriate.

Certain nonprice factors such as demonstrated financial ability, previous experience, use of Virginia fuels and other human and physical resources, plant size, fuel type, to name only a few, can and should receive varying emphasis at different types even for the same utility, depending on the circumstances.

Virginia currently has no independent power producers. However, if we did, their status would pose legal questions under our own Virginia laws. Under current Virginia statutes, they would be classified as public utilities and would be required to be regulated as such.

We believe FERC should look at the initiatives regarding independent power producers. However, in Virginia we will not deal with them right now because we have none wanting to come in.

As noted earlier, we view that the utilities are the suppliers of last resort; therefore, we believe that the utility construction option should be preserved even when bidding is available.

Mechanisms such as bidding are certainly useful as a way to encourage the contribution of new generating resources; but, again, bidding is not the only way. Each state is in the best position to gauge their own situation and act accordingly. Each state should be allowed to do so. This regulatory approach is both prudent and responsible and offers very clear benefits.

State commissions are in the best position to respond quickly to the changing circumstances and their states and can offer fresh, creative ways of addressing new situations.

This does not mean that State commissions operate in disarray or isolation. Each state is aware of actions and approaches in sister states, as Commissioner Keegan indicated. This type of information is shared, compared and especially facilitated through such organizations as NARUC.

The result is really a more consistent body of regulatory practice than is apparent at first glance. It is a consistency founded on shared goals. Last Friday, our commission adopted our bidding procedure. While not as detailed as that in Massachusetts, it embodies much of the same philosophy with regard to what we believe the utilities should be doing. That comes from our awareness of what is happening in other states.

The diversity of approaches by State commissions provides a better way of reaching those goals than could be obtained if all approaches were the same.

Finally, individual states are also in the best position to add a measure of real world experience to the considerable amount of theoretical speculation on the subject of increased competition in the supply of electric generation. The results of increased electric supply competition in Virginia have thus far been successful, and the potential is certainly encouraging.

As Commissioner Keegan indicated, however, we have not yet reached electric supply utopia. This is an evolving process and one which should be addressed as such. The refinement of policies and practices is an ongoing process. Our experience and the experiences of other states can provide FERC with valuable information in this regard.

The substance of the NOPRs referred to by the FERC commissioners this morning, of course, have not been reviewed by State commissioners. We do look forward to reviewing those.

I would only echo my two predecessors' statements that we certainly are encouraged by the Chairman's continued statements that her initiatives are designed to give the states the flexibility that we need in order to insure a continuing stable electric infrastructure for this country.

Thank you.

[The prepared statement of Ms. Lacy follows:]

STATEMENT OF ELIZABETH B. LACY
VIRGINIA STATE CORPORATION COMMISSION
BEFORE THE
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
FEBRUARY 1, 1988

Good Morning Mr. Chairman and Members of the Committee. At the outset, I would like to thank you for this opportunity to speak to the Committee.

The Virginia State Corporation Commission supports FERC's overall approach in addressing changes now occurring in the electric utility industry. FERC rules relating to PURPA, as currently written, provide the states with broad latitude in implementing the statutory requirements of Section 210 of PURPA. However, a number of issues have surfaced that were not contemplated when the legislation and rules were initially adopted, and consequently pose some difficult problems. We believe that in addressing these concerns, FERC should not attempt to resolve cogeneration and other third-party power issues for every state. Each state is in a unique position relative to cogeneration potential, capacity needs, generation mix, etc. The needs of each state are distinct and the state regulatory commissions are in the best position to assess those needs and determine how to best capitalize on cogeneration potential. Any new rules by FERC should be in the form of a clear directive that economic cogeneration is in the nation's best interest, and FERC should continue to allow states to develop their own rules for implementing the intent of Section 210 of PURPA.

Currently in Virginia, three of five investor-owned electric utilities have executed contracts for the purchase of close to 1700 MW of capacity from 36 cogenerators and small power producers. Our largest electric utility has, over the last two years, received offers of over 5000 MW of capacity to be available by 1990.

The Virginia Commission has just completed two proceedings concerning future electric resources. In the first case, we approved the construction by Virginia Power of a new generating facility (Chesterfield 7). Our second proceeding dealt with bidding as a mechanism for procuring new third-party capacity. At first glance, these two proceedings would appear incompatible. They are not.

In the case of Virginia Power's proposed plant addition, there was no substantial controversy on the need for capacity, the timing of its construction, the reasonableness of cost estimates, or the choice of technology. The only point at issue was whether there were suitable alternatives to the proposed construction, specifically power from resources other than the utility's own facilities. Several factors influenced our decision, but the one overriding principle was that it is Virginia Power which has the legal obligation to provide adequate and reliable sources of power within its service territory. This does not preclude third-party power; indeed, by 1990 Virginia Power will obtain well over 1000 MW of generating capacity from cogeneration and small power production (amounting to 7 1/2% of its total capacity). However, embracing third-party power to the exclusion of utility construction is not required by PURPA or state law, nor is it desirable in our opinion.

It should be noted that, although the state's cogeneration potential is large, it still exists mostly on paper. Utility construction provides a hedge against potential third-party supply problems.

In addition, most of Virginia's potential cogeneration is of the gas-fired combined cycle variety. The experience gained by Virginia Power in operating a similar plant may better equip it to operate such cogeneration units if it should become necessary under contract security provisions.

In fact, our decision to allow utility construction was premised on the expectation that third-party power would actually provide the bulk of incremental supply.

Our consideration of bidding was initially prompted by the need for a comprehensive review of the subject in the face of the fact that one of our utilities, again Virginia Power, was receiving offers of capacity greatly in excess of its projected needs. Our consideration did not result in formal rules; instead, we offered guidance as to whether bidding is legally appropriate as a method for acquiring third party capacity, and how, in general manner, such bidding programs should be structured.

We decided that bidding is allowable under PURPA, though not required. Considering the number of legal briefs and amount of material we had to go through in reaching this conclusion, some prior determination by FERC would have been helpful.

The type of bidding process we envision for Virginia can best be characterized as "competitive negotiation." Using this term, we distinguish such a method from a sealed, "price only", type of submission by potential suppliers. An emphasis on price only would be highly inappropriate. Certain non-price factors, such as demonstrated financial viability, previous experience, use of Virginia fuels and other human and physical resources, plant size, and fuel type to name only a few, can and should receive varying emphasis at different times, even for the same utility, depending on circumstances.

Virginia currently has no independent power producers (IPPs). However, if we did their status would pose special legal problems. Under current Virginia statutes, they would be classified as public utilities and would be required to be regulated as such.

As noted earlier, we view the utilities as suppliers of last resort, and therefore, believe that the utility construction option should be preserved, even with bidding available.

Mechanisms such as bidding are certainly useful as a way to encourage the contribution of new generating resources. But bidding is not the only way. Each state is in the best position to gauge their own situation, and act accordingly. Each state should be allowed to do. This regulatory approach is both prudent and responsible, and offers clear benefits.

State commissions are in the best position to respond quickly to changing circumstances in their states, and can offer fresh, creative ways of addressing new situations. This does not mean, however, that state commissions operate in disarray or isolation. Each state is aware of actions and approaches in sister states; this type of information is frequently shared and compared, particularly through organizations such as NARUC. The result is a more consistent body of regulatory practice than is apparent on first glance. It is a consistency founded on shared goals. The diversity of approaches by state commissions provides a better way of reaching those goals than could be obtained if all approaches were the same.

Individual states are also in the best position to add a measure of real-world experience to the considerable amount of theoretical speculation on the subject of increased competition in the supply of electric generation. The results of increased electric supply competition in Virginia have thus far been successful, and the potential is certainly encouraging, but we have not yet reached electric supply utopia. The refinement of policies and practices is an ongoing process. Our experience, and the experiences of other states, can provide FERC with valuable information in this regard.

COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

AT RICHMOND, JULY 17, 1987

APPLICATION OF

VIRGINIA ELECTRIC AND POWER COMPANY CASE NO. PUE860058

For approval of expenditures for
new generation facilities pursuant
to Virginia Code §56-234.3 and for
a certificate of public convenience
and necessity pursuant to Virginia
Code §56-265.2

FINAL ORDER AND OPINION

Opinion of the Commission:

On September 19, 1986, Virginia Electric and Power Company ("Virginia Power" or "Company") filed an application seeking approval for its construction of new electric generating facilities under Virginia Code §§56-234.3 and 56-265.2. As amended by the time of the hearing, the only facility for which approval is now sought is a 210 megawatt combined cycle gas-fired generating unit to be located at the Company's power station in Chesterfield County and to be known as Chesterfield Unit 7. This plant is to begin commercial operation in the summer of 1990, and Virginia Power estimates that the cost of construction will be $116.5 million.

Hearings before the full Commission were held on June 15 through 17, 1987. The Company, the Commission's Staff, eight protestants and two interveners took part in these proceedings. The Commission commends these participants for the thorough record which was developed with their assistance.

Under the Virginia statutes cited above the Commission must determine that the construction of the proposed facility is "necessary to enable the public utility to furnish reasonably adequate service and facilities at reasonable and just rates,"[1] and that the "public convenience and necessity"[2] require the construction. Though neither statute directly addresses the question of burden of proof in proceedings conducted thereunder, it is clear to the Commission, and appropriate, that the utility must bear that burden.

Several factors must be demonstrated to the satisfaction of the Commission before it can properly approve any new construction. Among these factors are that the utility will have a need for additional power within the time frame contemplated; that its cost estimates, choice of technology, construction plans and proposed manner of carrying out the project are reasonable; and that there are no suitable alternatives to the proposed construction, such as conservation and load management, upgrading existing units, or obtaining the necessary power from resources other than the utility's own facilities.

In this case, however, there was no substantial controversy about any of the above points except the last. The need for power in 1990 was acknowledged. The utility's construction plans and cost estimates were agreed to be reasonable, and the choice of technology for the plant engendered only slight opposition.[3]

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[1] Va. Code §56-234.3.

[2] Va. Code §56-265.2.

The single major issue, therefore, was the very crucial question of whether reliable sources of power are available from other quarters which would warrant Virginia Power foregoing the building of the proposed unit altogether.

The Commission has seriously considered this issue, reviewed carefully the evidence adduced with respect to it, and will give it the extended treatment it deserves in this opinion. In deciding this question we have kept in mind one overriding principle: It is Virginia Power which has the legal obligation to provide adequate and reliable sources of electric energy within its service territory, and the Commission must insure that the Company is permitted to carry out that duty in a reasonable, effective and flexible manner based on the best information available to it at the time the necessary decisions must be made. An adequate supply of electricity is essential for continued industrial and commercial growth in the Commonwealth of Virginia, and the ratepayers have as much right to expect this power to be available as they have to expect that it will be furnished at reasonable and just rates.[4]

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[3] One protestant, Applied Energy Services, Inc., suggested that Virginia Power should plan to build a plant which would burn coal rather than gas, but it was admitted by the protestant's own witnesses that a suitable coal plant could not be constructed and brought on line within the time available. Transcript, p. 466, 478. The Commission finds this to be the case and will not further discuss the coal option in this opinion.

In addition, several participants referred to the Chesterfield facility as a "prototype", and expressed fears concerning the viability of what they claimed was a new technology. The Commission finds, however, that while the plant incorporates certain advanced features principally designed to improve the unit's heat rate, the basic combined-cycle technology is a proven one appropriate for use in this situation. The fact that General Electric is selling the unit for a "turnkey" price which will insulate the utility against cost overruns during construction, and is also providing certain performance guarantees, helps to allay concerns of this nature as well. See Exhibit RHL-2, p.6.

We further believe that the intent of the applicable statutes is that the utility's management decisions of how best to accomplish its prescribed duties should be accorded considerable weight in this type of proceeding. The Commission will exercise its statutory oversight of such judgments carefully, always on guard against wasteful, clearly unnecessary or imprudent proposals, but reticent to interfere when the question of the appropriate course of action is a close one involving hard choices about an uncertain future.

The principal alternative to the building of Chesterfield 7 suggested in this case was that Virginia Power should be required to place heavier reliance on the cogeneration option for meeting its future power needs. Even the term "cogeneration" was unknown in common parlance less than ten years ago, but since the passage of the Public Utility Regulatory Policies Act of 1978 ("PURPA" or "Act"), electric generation facilities not owned by certificated utility companies have become a major force in the power supply framework of this state and nation. Indeed, the very purpose of that Act was to encourage cogeneration and small power production, since Congress believed that development of such resources would reduce the demand for scarce fossil fuels.[5] The Act has certainly succeeded in this worthy goal. As the record in this case demonstrates, cogenerators and small power producers already supply a respectable portion of Virginia Power's generation mix, and the reliance on these independent sources of power will grow enormously in the future, regardless of whether the Commission were to approve or disapprove the building of Chesterfield 7.

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[4] Va. Code §56-234.

The interest in cogeneration in Virginia Power's service territory is due in no small measure to the positive and clear efforts this Commission has taken to see to it that these diverse resources are encouraged and enabled to reach their full potential. In its Final Order in Application of Vepco, Case No. PUE830067, 1985 SCC Ann. Rep. 384, 386 (November 15, 1985), the Commission said:

> Such development has this Commission's full support for a number of persuasive reasons. Cogenerators can use fuel to produce steam for both their traditional industrial processes and to produce electricity. The extra cost to generate such electricity is obviously lower than the cost of generating electricity alone. Cogeneration is an economic and efficient use of this nation's energy resources. It is

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[5] Federal Energy Regulatory Commission v. Mississippi, 456 U.S. 742 (1982); American Paper Institute, Inc. v. American Electric Power Service Corporation, 461 U.S. 402 (1983).

> also in the national public interest to decrease our reliance on scarce fossil fuels.
>
> . . . .
>
> . . . Such generation may enable the utility to defer investment in large generation units and thereby minimize the burden of utility financing. Moreover, small additional increments of power supply may also help the utilities more closely match their supply with the demand for electricity. Further, many small decentralized units will help insulate the utility and its ratepayers from major disruptive outages as may occur with a few large centralized generating units.
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> . . . .
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> . . . We believe the results we have reached here will make it clear that cogeneration and small power production facilities are welcome in Virginia and that this Commission . . . intends to see that the development of those facilities is strongly encouraged in this state.

Given this firm impetus from the Commission, Virginia Power has, in recent years, actively pursued an extensive cogeneration program. The record of this case demonstrates that, by 1990, the Company intends to obtain well over 1,000 megawatts of its generating capacity from cogenerators and small power producers, which would amount to over 7 1/2% of its total capacity.[6] No other utility in the state has made such substantial use of cogeneration in its planning.

Nevertheless, we also note that considerable controversy was engendered in this case concerning Virginia Power's methods in dealing with cogenerators, the criteria by which it selected certain cogenerators and rejected others, its method of calculating avoided costs, and whether its practices in this regard are consistent with PURPA, the federal regulations issued thereunder, and this Commission's previous orders on the subject. We will not undertake to decide those questions here, however, inasmuch as we find them tangential to the principal issue, that is, whether to approve or disapprove the building of Chesterfield Unit 7. We will have ample opportunity to address such questions directly in two petitions now pending before us,[7] and in our consideration of the forthcoming report from our task force on cogeneration.[8] Suffice it to say that this Commission intends to continue to encourage the development of cogeneration and small power production in this state, and nothing herein should be taken in derogation of that goal.[9]

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[6] Transcript, p. 396.

While it is clear that Virginia Power means to rely on cogeneration for supplying most of its incremental power needs for the immediate future, the real question is whether it should embrace that potential to the exclusion of any building plans of its own.

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[7] Petition of Tellus, Inc., Case No. PUE870046 and Petition of City of Newport News, Virginia, Case No. PUE870029.

[8] This task force, composed of representatives from Virginia Power, the Staff, the Attorney General's Office, and cogenerators, was established by our Final Order in Case No. PUE830067, supra, p. 5.

[9] While we are expressly not determining avoided costs issues here, we do wish to comment on suggestions by some parties that Chesterfield 7, by earning a return in the utility's rate base, could be more costly to ratepayers than an equivalent amount of privately-owned cogeneration. Such views exhibit a misunderstanding of the basic theory underlying PURPA, which is that with proper calculation of avoided costs, cogenerators receive compensation from the utility in the same amount which the utility would otherwise collect from ratepayers by building, owning and operating its own plant.

To dispose of that issue we need not determine which of the several projections placed in evidence depicting the level of cogeneration potentially available by 1990 is more nearly correct. It is obvious from the record that a great deal of cogenerated power could become a reality in the next several years, more than enough to supplant the capacity of proposed Chesterfield 7.

Thus, we must decide whether Virginia Power should be permitted to go forward with its own construction plans to meet its obligations under the law in the face of this admittedly large potential. That, we find, is clearly an issue of state law, not federal law. Indeed, it is manifest that PURPA does not attempt to control directly a utility's construction prerogatives in any manner whatsoever. The impact of PURPA on utility building plans is, by design, more subtle and indirect. The hope embodied in PURPA and its related regulations is that, by requiring the utility to purchase "any energy and capacity which is made available from a qualifying facility"[10], the utility will find it possible and prudent to avoid, under proper circumstances, costly new construction as part of a responsible and flexible planning process. However, it is the duty of the utility, subject to approval and continuing oversight by this Commission under Virginia law, to exercise managerial discretion in determining when circumstances are appropriate in any specific case to forego the construction of additional facilities without endangering the ability to serve the projected needs of the public.

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[10] 18 C.F.R. 292.303(a) (1987).

The most important circumstance clearly pertinent to this particular case, in our view, is that this massive cogeneration potential presently exists largely on paper. True, a number of parties have signed contracts with Virginia Power to supply power by 1990, and many others have expressed an eager willingness to do so. However, that fact, in and of itself, does not establish that the power will be there when the time comes to throw the switch. Securing the necessary financing, permits, qualifying facility status, sites, and a "host" industrial firm - any one or more of such initial requirements may present insurmountable problems for an unknown number of the cogeneration firms on which the optimistic projections presented to us were based. Actually building, operating and fueling the new plants could later produce their own peculiar difficulties.

Given these uncertainties, it is possible that Virginia Power may not absolutely require Chesterfield 7 by the time it is completed[11], but it is also true that it may wish it had several more such plants at that time. As noted earlier, cogeneration is a relatively new innovation in this country. While we applaud and support its development, we are not prepared on this record to force the state's major electric utility to place complete reliance on mere promises for all of its future needs. Making such a decision would be wrong in this case, and it would also set an unwise precedent. If Virginia Power must forego construction plans here, where other resources are not actually in place, some of which may prove to be nothing more than good intentions, then it is arguable that no utility should be allowed to build any new plant until it is definitely determined that other promised or projected sources will not materialize. By then, of course, it will be too late to avoid the shortages which would inevitably result.

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[11] Even should this turn out to be the case, the plant is so small that it would increase Virginia Power's planned reserve margin for the period only from 18.5% to about 20%, a level which the Staff does not view as excessive. Transcript, pp. 187-88, 378-80.

In short, it is our conclusion that management has selected a reasonable and balanced approach in deciding to supply a relatively small portion of its required new capacity itself, thereby providing some hedge against problems which may arise with its cogenerators.[12]

Another alternative suggested at the hearing to avoid the building of Chesterfield Unit 7 was the possibility that a planned 200 to 300 megawatt out-of-state bulk power purchase by Old

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[12] In addition, the operating experience gained by Virginia Power with this unit may better equip it to understand the technological characteristics of cogenerators with similar units, and to operate such units, should it become necessary, under the security provisions of some of Virginia Power's cogeneration contracts.

Dominion Electric Cooperative ("ODEC") would lessen ODEC's load imposed on Virginia Power by a similar amount and, therefore, would allow Virginia Power to use that extra power for its own customers.

A petition from ODEC on this subject is presently pending before this Commission,[13] and Virginia Power has filed a response to it, but the matter has not yet been set for hearing. The Commission, of course, applauds the exploration of innovative arrangements of this nature which may be of benefit to both parties. However, for purposes of this case, it must be borne in mind that the matter is in litigation and the outcome not yet certain.

In addition, it is clear from this record that ODEC is interested in obtaining the benefits of its proposed power purchase agreement as soon as possible.[14] In light of this concern, Virginia Power's witness testified that, if the matter comes to fruition, the Company's method for adjusting to this change would be to forego a purchase of some 200 megawatts of off-system power in 1989.[15] This approach would fit much better with ODEC's desire for a prompt conclusion of this matter than would the cancellation of Chesterfield 7, scheduled for operation more than a year later. Virginia Power clearly could not avoid both the

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[13] Case No. PUE870053.

[14] Transcript, p. 196.

[15] Virginia Power had previously projected this purchase for January, 1989, as a part of its overall capacity plans filed with its application in this case. Exhibit LWB-7, Schedule 5.

1989 purchase of 200 megawatts, as well as the 210 megawatt Chesterfield unit, simply by relying on the ODEC purchase of 200 to 300 megawatts. Therefore, we find that the potential ODEC purchase is not a reasonable substitute for the proposed construction in this case.

NOW, THE COMMISSION, upon consideration of the record in this proceeding, the briefs and arguments of the parties, and the applicable law, is of the opinion and finds that:

(1) Virginia Power's proposal for the construction of Chesterfield Unit 7 is an improvement to its system which is necessary to enable it to furnish reasonably adequate service and facilities at reasonable and just rates. The construction and related expenditure is therefore proper under the terms and conditions of Virginia Code §56-234.3.

(2) Virginia Power's construction of such facilities for use in public utility service is also required by the public convenience and necessity, pursuant to the provisions of Virginia Code §56-265.2.

Accordingly,

IT IS ORDERED:

(1) That Virginia Power's proposed construction of Chesterfield Unit 7 and the related expenditure is hereby approved pursuant to Virginia Code §56-234.3, and a certificate of public convenience and necessity shall be issued therefor pursuant to Virginia Code §56-265.2.

(2) That there appearing to be nothing further to come before the Commission in this proceeding, this case shall be removed from the docket and the papers placed in the file for ended causes.

ATTESTED COPIES hereof shall be sent to Evans B. Brasfield, Esquire, P.O. Box 1535, Richmond, Virginia 23212; Anthony Gambardella, Esquire, Office of the Attorney General, Division of Consumer Counsel, 101 North 8th Street, 6th Floor, Richmond, Virginia 23219; Edward L. Flippen, Esquire, P.O. Box 1122, Richmond, Virginia 23208; Marcus D. Williams, Esquire, 4100 Chain Bridge Road, Fairfax, Virginia 22030; Louis R. Monacell, Esquire, 1200 Mutual Building, Richmond, Virginia 23219; John D. Epps, Esquire, One James Center, Richmond, Virginia 23219; Stephen H. Watts, II, Esquire, One James Center, Richmond, Virginia 23219; Beverly L. Crump, Esquire, P.O. Box 1463, Richmond, Virginia 23212; Eric M. Page, Esquire, 320 West Broad Street, Richmond, Virginia 23220; and Edward R. Gwynn, Esquire, 4100 Spring Valley Road, Dallas, Texas 75244.

SCC-43

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION
AT RICHMOND, JANUARY 29, 1988

COMMONWEALTH OF VIRGINIA

At the relation of the

STATE CORPORATION COMMISSION CASE NO. PUE870080

Ex Parte: In the matter of
adopting Commission policy regarding
the purchase of electricity by public
utilities from qualifying facilities
when there is a surplus of power available

FINAL ORDER

By Order of October 14, 1987, the Commission instituted this proceeding to consider questions surrounding the acquisition of additional generating capacity by electric utilities. The need for a comprehensive review of this subject was perceived, in part, as a result of the contention by one of the State's major utilities, Virginia Power, that it was receiving capacity offers in amounts greater than its projected needs for the foreseeable future.

The Commission's Order invited comments from interested parties on a number of issues, many of which revolved around the concept of "bidding" by potential power suppliers. Written responses were to be filed by November 13, 1987, with a Staff report by December 4, 1987. An oral argument was later scheduled for January 4, 1988.

Extensive written comments were received from many parties, including utilities, customer groups, cogeneration firms, and the Office of Attorney General. These comments, supplemented by the oral argument and the Staff report, quite clearly set forth the positions of the participants. The Commission has carefully considered this material in reaching its conclusions and will continue to draw on it as it oversees the evolution of utility capacity planning and acquisition policies in the years to come.

This case was not a rule-making proceeding, and this Order will not adopt rules or regulations. The case was instituted to seek the assistance of those most concerned with this field prior to our addressing a number of questions we consider of significance to the purchase of new power supplies. As it evolved, however, particularly by the time of the oral argument, the principal focus of the case was largely on a single legal question -- whether bidding for new power supplies is lawful under the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. §2601 et seq. (1978) ("PURPA") and the rules of the Federal Energy Regulatory Commission ("FERC") adopted pursuant thereto. It is obvious that this important question is one on which there is serious disagreement among the parties. Inasmuch as it is vital that capacity planning be a continuous, ongoing process, and that it not be subjected to a long hiatus while cases such as this are unduly prolonged, we have determined it is appropriate to give an answer at this time which is as definitive and succinct as the posture of this general investigation will permit.

Since there is no specific proposal before us, any guidance we give on this subject must be understood to apply to the question purely in the abstract. The guidelines suggested here are general in nature and not binding on any party. Consideration of exact procedures must await a later time when such proposals are brought before us in an appropriate context, with a full opportunity afforded interested parties to present evidence and be heard.

With those caveats, we find that the general concept of bidding for new power supplies is a permissible response to PURPA and the FERC regulations.[1]

We believe that a bidding procedure, if properly conceived and implemented, is an excellent means of determining, in the real world of the marketplace, the utility's avoided costs with respect to the procurement of any particular block of capacity.

While we do not endorse or mandate a specific method of conducting such solicitations, the program which we believe might be very workable in this environment, even though it is a form of bidding, might be more descriptively termed "competitive negotiation."[2] Using this term, we distinguish such a method from a sealed, "price only" type of submission by potential suppliers.

An emphasis on price alone would be highly inappropriate in this context. Megawatts of capacity are not nearly so fungible as bushels of wheat. Many factors play a part in determining the value of a particular plant to a utility and to the people of Virginia.[3]

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[1] Naturally, the discussion in this Order does not apply to those small firms whose purchase rates are now fixed, and will continue to be fixed, by specific tariffs of the various utilities, such as Schedule 19 in the case of Virginia Power.

[2] This phrase will be recognized by those familiar with the provisions of the Virginia Public Procurement Act, Va. Code §11-35 et seq. The analogy to the procedure set forth there is helpful, with the understanding that that procedure envisions the ultimate selection of a single successful vendor, while the process we are suggesting obviously assumes a number of qualifying facilities ("QFs") will finally receive contracts from the utility.

This Commission believes that a number of factors, in addition to price, could properly be used to distinguish among proposals submitted to a utility during a particular round of competitive negotiations. The evaluation of specific proposals should, we think, assign favorable weights to such features as:

- Use of Virginia fuels, manpower and other State resources.
- A high percentage of steam or electricity usefully employed by the host firm.
- The benefits to be derived by the industries and communities associated with particular projects.
- Demonstrated financial viability.
- The proponent's previous successful experience in this field.
- Other identifiable economic and societal benefits to the people of the Commonwealth.

In furtherance of this evolving process, it is not necessary that the factors used, or the weights applied, remain static over the years. For example, a utility which becomes concerned over a large amount of gas generation on its system could justifiably decide to assign relatively little value to new gas-fired plants in a future solicitation, even though that fuel may have been encouraged in previous rounds.

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[3] Even the FERC regulations acknowledge that nonprice factors must be taken into account in arriving at avoided costs. 18 C.F.R. §292.304(e) (1980).

The Commission, therefore, envisions a system in which a utility determining a need for additional power would issue, probably on an annual basis, a form of "Request for Proposals," ("RFP") identifying its requirements in broad general terms, and the factors to be used in selecting projects to meet those needs.[4] Participants in the market would evaluate this RFP in light of their own best interests and respond accordingly. The utility would review the responses received and select the firms appearing to be the best-qualified with which to conduct competitive negotiations to resolve essential details, including price. Contracts would be signed with successful parties, and such contracts could differ dramatically from one another, depending on the individual arrangements finally struck.[5]

These contracts, arrived at after hard bargaining with many parties, will determine what the utility must pay any particular supplier under the terms and conditions of that specific contract. Since all players in the market would have had an equal opportunity to negotiate a similar arrangement, if feasible within their own operational and financial constraints, it can be concluded that the price arrived at approximates the utility's avoided costs. Why? Because, if the successful QF had not signed a contract, presumably another similarly situated party, with the same knowledge of all the facts, would have been willing to sign a similar contract in its place. Thus, the utility is avoiding the costs of making the same arrangement with another firm.[6]

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[4] Utilities should guard against the temptation to make an RFP overly restrictive in terms of the types of projects which could reasonably meet the threshold criteria. It is important that the process give a fair opportunity to all participants. In particular, we would note that it has been seriously alleged in the past that an insistence on full dispatchability rights has severely hampered the ability of many industrial firms to compete in this field.

[5] It seems to us that considerations of fairness, equity and the appearance of arm's length dealing would prohibit the host utility or any affiliated firm from participating as a potential power supplier in such negotiations. The utility is best seen as the supplier of last resort, should all proposals received be more costly than the utility's own "build option."

We are, of course, aware that no market ever acts in practice as perfectly as it is constructed in theory, and that, in our example, it is quite possible that another firm might be willing to sign the same contract at a lower price, or that no other firms would have made a similar arrangement unless a higher price were offered. Nevertheless, we believe a system of competitive negotiation such as we have described would be a very efficient and fair means of approximating real, not theoretical, avoided costs.

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[6] Some parties to this proceeding argued that any type of bidding procedure would impermissibly focus attention on the costs of the QF, rather than those of the utility, contrary to PURPA. As we will demonstrate below, PURPA imposes only a ceiling on prices when it speaks of "incremental" costs, and, secondly, assuming a free and open market process is operating with regard to any round of competitive negotiations, the costs paid by the utility are indeed its avoided costs of not dealing with another, similarly situated QF.

In 1985, we characterized the FERC rules as requiring electric utilities to "pay new qualifying facilities...an amount equal to the full avoided costs for the power sold..."[7] We also noted, however, that "the calculation of those avoided costs can be the source of significant controversy..."[8] Such controversy obviously still exists, and new ways of looking at this problem are made even more imperative by the fact that the status of the once-fledgling QF industry has changed dramatically in recent years. While we are not assessing the validity of Virginia Power's claim that it is beset by an over abundance of riches in this field, it is obvious to any informed observer that the cogeneration and small power production industry has grown to be a major force in this state, as well as nationally. We, therefore, emphasize another portion of the FERC's commentary to its rules:

> ...the Commission supports the recommendation [of its] Staff ...that it should leave to the States...'flexibility for experimentation and accommodation of special circumstances' with regard to implementation of rates for purchases.[9]

It is, in fact, only in the FERC's commentary to its rules, written in 1980, that one finds the preference for full avoided costs which we identified in our 1985 Order. Upon close analysis of this subject, it is plain that neither PURPA nor the rules FERC actually adopted require that degree of compensation.

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[7] Application of VEPCO, Case No. PUE830067, 1985 S.C.C. Ann. Rept. 384 (November 15, 1985).

[8] Id at 384.

[9] Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978, 45 Fed. Reg. 12214 at 12226 (1980).

Both PURPA and its associated regulations require only that rates paid to QFs be just and reasonable to the utility's consumers and in the public interest, and that they not discriminate against QFs. Far from requiring compensation at full avoided costs, PURPA instead forbids payments which exceed the "incremental" cost of alternative supplies. In turn, the FERC regulations merely create a "safe harbor" provision, in that any rate which is set at full avoided costs, after consideration of other factors we mentioned earlier, will be deemed to satisfy the above requirements.[10]

It is undoubtedly true that the requirement that rates be in the public interest mandates, in part, that they be set at a level which is fully adequate to encourage cogeneration and small power production, which is one of the central purposes of the legislation. This Commission has previously approved the use of various theoretical models and hypothetical calculations in an attempt to set payments at a level which would provide such encouragement. As we have explained above, a program of competitive negotiations can result in an even more realistic assessment of costs as determined, not in theory, but by the marketplace.

Before closing this section of the Order, we note that the most obvious proof that PURPA and its regulations do not require full avoided cost payments at every turn is §292.301(b) of the regulations, which provides:

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[10] PURPA §210(b), 18 C.F.R. §292.304(a), (b) (1980).

> Nothing in this subpart...[l]imits the authority of any electric utility or any qualifying facility to agree to a rate for any purchase, or terms or conditions relating to any purchase, which differ from the rate or terms or conditions which would otherwise be required by this subpart; or...[a]ffects the validity of any contract entered into between a qualifying facility and an electric utility for any purchase.

This provision is highly relevant to the concept of bidding through competitive negotiation. If the utility and QFs voluntarily enter into contracts reached through such a process, those contracts clearly fit the above exceptions. In addition, if a surplus of potential suppliers were to exist, as Virginia Power claims, and if sufficient contracts were ultimately awarded to fill all the utility's needs, then those QFs who were unsuccessful bidders, or who were unwilling to participate in the bidding process, might find that their supposed entitlement to avoided costs had become a dead letter. If the utility needs no further capacity, the avoided costs of such capacity is zero.[11]

Another legal issue briefed by the parties was the question of the status of so-called independent power producers ("IPPs") under State law. As we are aware of no such firms located in the State at the moment, we will merely note our agreement with most of the parties that such fundamentally new types of enterprises might well fall within the coverage of public utility laws at both the state and federal level. This observation is not surprising, since the definitional sections of such statutes long predate the very concept of IPPs.

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[11] See supra, 45 Fed. Reg. 12214, 12219 (1980).

As we noted early in this Order, our conclusions here are binding on no party; thus, utilities are free to adopt or reject a competitive negotiation procedure. If adopted, the choice of the actual details of the program is one which the utility must make initially. Since each utility has unique operational characteristics, we would presume that such programs might also differ among utilities.[12]

Our oversight of utilities' acquisition policies will continue to take two basic forms. First, our Staff will continuously monitor them, including review of any proposed RFPs, factors used and weights assigned, firms selected, and contracts awarded. Second, should complaints arise from outside parties regarding particular policies, the Commission stands ready, as always, to provide a forum for review of the prudence and fairness of such programs.

We will watch developments in this area with great interest. Our November, 1985 Order constituted a strong statement in full support of the concept of cogeneration and small power production and mandated recognition of its many benefits, both tangible and intangible. Nothing we have said here should be construed otherwise. We believe that the views we have expressed will help to hasten a realization of the ultimate promise of this industry, but we also know that the process is still an evolving

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[12] Of course, we are sure all utilities realize that such a program, even if adopted, would constitute only one part of a company's total planning responsibility. In particular, as our Staff has noted, consideration of both demand and supply side options is vital in this arena.

one which will require our constant attention. We may, at some later date, conclude, for example, that procedures then in place are not providing proper encouragement to firms using especially desirable technologies or fuels, and that utilities should therefore reserve blocks of capacity for such segments of the industry. In short, the Commission will not hesitate to use new and different approaches in this field when we deem it necessary.

NOW, THEREFORE, there appearing to be nothing further to be done in this proceeding, this case shall be removed from the docket and the papers placed in the file for ended causes.

ATTESTED COPIES hereof shall be sent to: The Honorable Frank W. Nolen, P.E., Member, Senate of Virginia, P.O. Box 13, New Hope, Virginia 24469; Edward L. Flippen, Esquire, Mays & Valentine, P.O. Box 1122, Richmond, Virginia 23208; Evans B. Brasfield, Esquire, Hunton & Williams, P.O. Box 1535, Richmond, Virginia 23212; Harrison Wellford, Esquire, National Independent Energy, 1701 Pennsylvania Avenue, N.W., Washington, D. C. 20006; Eric M. Page, Esquire, Applied Energy Services, Inc., 320 West Broad Street, Richmond, Virginia 23220; Geoffrey F. Meyer, Hercules, Inc., Hercules Plaza, Wilmington, Delaware 19894; Torgeir A. Mantor, President, Norse Service Houston, 4600 Post Oak Place #207, Houston, Texas 77027; Kenneth E. Wright, Lane Company, Box 151, Altavista, Virginia 24517; Glenn J. Berger, Esquire, Union Camp Corporation, 1440 New York Avenue, N. W., Washington, D. C. 20005; Robert M. Hewett, Old Dominion Power Company, One Quality Street, Lexington, Kentucky 40507; Paul J. Kava, Plant Manager, Firestone Fibers & Textiles, P.O. Box 450, Hopewell, Virginia

23860; Stephen H. Burch, President, Cogeneration Systems, Inc., P.O. Box 1000, Nashville, Indiana 47448; James C. Kostelni, Georgia Bonded Fibers, Buena Vista, Virginia 24416; John F. Austin, P.E., P.O. Box 384, Charleston, West Virginia 25322; Sanford Schneider, Cogeneration Partners of America, 333 Thornall Street, Edison, New Jersey 08837; John W. Dax, Esquire, Inter-Power of New York, 150 State Street, 2nd Floor, Albany, New York 12207; John K. Pollock, President, Virginia Hydro Power Association, P.O. Box 413, Afton, Virginia 22920; John L. Walker, Jr., Esquire, Appalachian Power Company, P.O. Box 720, Roanoke, Virginia 24004; Philip J. Bray, Esquire, Potomac Edison Company, Downsville Pike, Hagerstown, Maryland 21740; Michael L. Hern, Esquire, Old Dominion Electric Cooperative, P.O. Box 3-G, Richmond, Virginia 23207; Mary E. Cassidy, Esquire, Philip Morris, U.S.A., 1200 New Hampshire Avenue, N. W., Washington, D. C. 20036; Louis R. Monacell, Esquire, Virginia Committee, 1200 Mutual Building, Richmond, Virginia 23219; John E. Cunningham, Virginia Electric and Power Company, P.O. Box 26666, Richmond, Virginia 23261; Beverly L. Crump, Esquire, Virginia Solid Waste, et al., P.O. Box 1463, Richmond, Virginia 23212; Donald R. Pitman, President, American Cogenics, Inc., P.O. Box 988, Dover, New Hampshire 03820; Peter F. Clark, Esquire, Delmarva Power & Light, P.O. Box 231, Wilmington, Delaware 19899; Charles J. Stern, KTI Holdings, Inc., Four City Center, Portland, Maine 04101; Dennis C. Williams, Energy Resources, Inc., P.O. Box 10340, Wilmington, North Carolina 28405; Deborah V. Ellenberg, Esquire, Ultrasystems Development/Ultra Cogenics, Post Office Box

1122, Richmond, Virginia 23208; William M. Irving, President, American Ventures, Inc., 236 North Falmouth Highway, North Falmouth, Massachusetts 02556; Sanford L. Hartman, Esquire, Long Lake Cogeneration, 420 Lexington Avenue, #440, New York, New York 10170; and Anthony Gambardella, Esquire, Office of Attorney General of Virginia, 101 North 8th Street, Richmond, Virginia 23219.

The CHAIRMAN. Thank you very much.

You referred to the nonprice conditions of a bid and that it is important for a State PUC to retain control over those. You mentioned such things as financial ability.

Can a PUC define those going in, or must it be only an after-the-bid situation? In other words, could you not make certain minimum conditions on financial ability as measured by a bond or such?

Ms. LACY. The State PUC certainly could, Mr. Johnston. We have in Virginia chosen a different approach than Massachusetts. We believe strongly that it is the duty of the electric utility to manage its own company and.

As a result, while we have set out the fact that we think financial stability is a legitimate consideration in structuring the RFP that would go out by the company, we believe that is something that must be retained within the utility.

Now, because this is an evolving process, if our Virginia utilities act in a manner in soliciting or sending out RFPs and accepting bids which we believe does not comply with the recommendations in our opinion or they are structuring bids that discourage cogeneration or perhaps discourage necessarily particular kinds of cogeneration, our commission will not hesitate one minute to step in and take a much stronger role, an actual direct staff role in reviewing the RFPs, in approving them or perhaps even approving the contracts themselves.

At this point in time, though, with what we have seen in our state we do not believe it is appropriate for us to specifically delineate the weighting factors or all of the nonprice factors that a utility may wish to include in its RFP.

My answer is we could do it, but we do not think it is appropriate for the commission to do it at this point.

The CHAIRMAN. But the commission would approve that at the time the RFP goes out?

Ms. LACY. Not necessarily. In our opinion, we have given the utilities the way we believe it should be done, not by a rule or regulation that they have to comply with.

We remain as a referee or an arbiter, if you will. If various parties to the bidding have problems with the RFP and think that it is not done in compliance with our opinion, we will then hear a case to make that determination but we will not approve——

The CHAIRMAN. In advance of the RFP, not after the fact?

Ms. LACY. It could be after the fact. We will not be approving the RFP prior to its submission by the utility out to any bidders.

The CHAIRMAN. Now, let us suppose that we go to this NOPR 2 all-source competitive bidding. As I understand the way that would work, the PUC would come up with its plan for ASCB. In other words, they say any electric purchased has got to be according to this bidding.

Then a utility would file its request for so much electricity.

The PUC would then certify the need for power, as I understand it.

Then they would have the acquisition pursuant to these competitive bidding rules, also subject to an oversight by the PUC.

Now, I do not know whether I have correctly described what they have in mind but if that is correct, how, then, could a PUC come in and question the prudency of the acquisition of that power later?

Ms. **Anderson**. Mr. Chairman, if I may, I think you raise an extraordinarily significant problem; that is, making regulators both managers and regulators at once. It is a matter that probably would cut substantially into the ability to regulate in the face of having been involved in preliminary decisions of that nature.

We have not seen the proposals. We think that, despite the fact that there are strong representations that all of this would be voluntary once you got into that system, the injection of these kinds of stringent requirements would raise significant questions that have yet to be answered.

The **Chairman**. Is it possible to answer that? Is there a necessary contradiction between approving or requiring a bid process and later coming in and challenging the prudency of the result?

Mr. **Keegan**. I think there is, Senator.

The **Chairman**. Is it necessary, by the way, that you be able to challenge the prudency later on?

Mr. **Keegan**. I think once you make the determination that you are going, to a degree, turn over the power procurement decision to the marketplace, you then end up having to rely on the marketplace to give you the best option.

Now, I agree with a lot of what Commissioner Lacy said about having a utility be responsible for deciding what it needs and doing its own planning.

I think the difference that we have in our system is that we require the utility to, before the fact, specifically identify what nonprice criteria and the degree to which it will weight those nonprice criteria in its RFP.

That RFP comes to the Commission. The Commission looks at its forecast for demand, looks at how it would go about meeting that, checks off on the ceiling price, and decides whether or not it disagrees with the weighting in the nonprice criteria.

Once we have said this RFP looks appropriate to us, it then goes out into the marketplace, and each qualifying facility can essentially grade itself and determine what score it will get on the RFP before it submits a bid.

When that bid then comes into the utility, so long as it is processed correctly it should result in the project that has the least cost and the most beneficial nonprice criteria. Once that contract is entered into, then I think the Commission essentially agrees that the utility will pay that price for all generated kilowatt hours that that project is on, and that price will flow through to ratepayers.

Ms. **Lacy**. Mr. Johnston, if I might comment on our original question regarding the prudency, I think also that one of the things we have to keep in mind in the purchase of the power like this through IPPs or through qualifying facilities is those facilities do not go into rate base the way it certainly does when you have a utility building their own.

As a result, some of the prudence issues are a little bit different and perhaps look more like maybe some of the problems we have gotten into in the take-or-pay area in the gas arena.

So I think that while commissions need to have continual oversight, the use of dollars connected with prudency may be very different under a generation purchase contract as opposed to a capital intensive rate base treatment which has caused so many prudency problems at the present time.

Senator FORD. Mr. Chairman, let me inject.

We talk about regulating utilities, and I guess you all require certain capital to investment in kind of a ratio, and now we are kind of getting away from that

I am wondering if you are going to have the same kind of ratio with IPPs. I listened to Chairman Hesse. Whatever they do, they are going to give it to you or it is all going to be your responsibility whatever they come out with, and I think they ought to leave you alone because you are moving pretty good. Nevertheless, I think we are on that path.

What kind of financial structure, what kind of prudency rule will you have for IPPs?

Ms. LACY. I think that is one of the big issues here, that we would not regulate the IPPs and, therefore, we could not set any meaningful standard that would have any teeth in it with regard to the capital structure of an IPP.

Senator FORD. Does that damage your ability to see that your consumers gets the energy that they desire and at the price they would prefer to pay?

Ms. LACY. It certainly goes into the question of reliability. Also, say there is a problem with an IPP generating plant and it is not financially wise for the stockholders to fix that problem; it is cheaper for them to close that plant down.

That is a question that will have to be dealt with. I would hope we never have to deal with that, but that is a very real question. It could have a significant impact on reliability, which is one reason why we in Virginia want our utilities to include nonprice factors such as financial stability and so forth.

Senator FORD. If the lights go out, Madam Chairman, then who are people going to look to? They are going to look to the utility that took the bid from the IPPs and to the regulator that approved it.

Ms. LACY. Also, unfortunately, to the members of the legislative bodies. I think you may get the first calls, and then you will be calling us.

I am not being facetious. Those are the very real problems, and that is why I think it is extremely important that we allow nonprice factors. It would be very bad to have all new capacity in big increments, because if one of those plants goes down, that may be a problem. You have to look at fuel mix. You have to look at where these plants are on the transmission grid.

There are a tremendous number of factors which must be taken into consideration, and I think the states are evolving processes to do that.

I am very concerned about NOPR 2, although I have not seen it, in the specificity I have heard this morning regarding how to deal with IPPs. If the FERC wishes and the Congress agrees that IPPs should be allowed, I think that determination is important and should be made. However, the kind of bidding which I hear talked about regarding IPPs may be as restrictive and exactly counter the flexibility that we have talked about this morning. So I am anxious to see that.

The **Chairman.** Getting back to the question, is this an after-the-bids-are-received flexibility, where some bid comes in but it is on the wrong place on the grid or you decide it is not financially strong enough; or is this the ability of the PUC to define the RFP?

Ms. **Anderson.** Mr. Chairman, I would like to step outside my NARUC role at this time and just describe very briefly the circumstance that the State of Michigan is now confronting.

Our two utilities companies are in very interesting positions at this juncture. One has a more than 17 year under construction nuclear power facility that was within the last year converted to a gas-fired combined cycle facility, now a cogeneration unit as a subsidiary of the parent company of our utility company that would provide its citizens 1,350 megawatts of energy.

It is now in competition with all would-be other qualifying facilities that would compete for being able to supply energy on its system.

There are currently less than 50 such cogenerators on that system currently, providing a combined 9 megawatts of energy. There are less than 200 contracts currently approved, with somewhere in the neighborhood of 2,000 out there, perhaps more, that would provide a total of 2,000 megawatts of energy, of which 1,350 would come from this company source of generation.

On the other side of the coin, the other major utility has brought on line within the last week or two a nuclear energy facility that was under construction for 19 years, and it was saying adamantly that it needs no additional——

The **Chairman.** Under construction for 19 years?

Ms. **Anderson.** Yes, 1969.

The **Chairman.** That has to be a record.

Ms. **Anderson.** So it is suggesting that as it looks at its rate base that it needs no additional power.

We are in the extraordinary circumstance in Michigan of not having established a bidding system yet because we are still taking comments and attempting to sort out through a hearings process the capability of those two particular companies doing armslength dealing in substantial fashion with would-be cogenerators on their system.

It is a very serious problem and, again, I think, points out the need for flexibility within the states to address their own unique brand of problems.

We did not set forth this company as a qualifying facility. This was done at the Federal level, but we must live with the consequences of that decision.

Mr. **Keegan.** If I could just follow up to your question and also Senator Ford's question.

I think when Senator Ford was talking about the investment by a utility and the capitalization ratios that we look at, we have applied those formulae in terms of a utility constructing its own generation plant and when that plant goes into rate base.

As Commissioner Anderson just referred to you, there are some projects that have gone on for 18 or 19 years, and there are significant risks in that process to ratepayers in terms of the prudency review after that 19 years and how much the plant goes into rate base.

When you start dealing with qualifying facility contracts and independent power producers, you are not taking that investment and putting it into any rate base anywhere. Essentially, the independent power producer or the qualifying facility is assuming the construction and operating risk associated with that facility.

So we have moved from a system that pays one of these entities on a production output basis as opposed to having the plant in rate base.

Now, as an example, in Massachusetts we have——

Senator FORD. Let me ask you a question at this point. I do not interrupt you. You are doing very well.

What about the high leverage situation that the IPPs might be in? Does that give you any concern?

Chairman Lacy said just a few moments ago if it is cheaper for those investors just to close her down, they are going to close her down. Then you have a problem then, and you may have a capacity problem. We get the call first, but that line is not going to cool off until we call you.

So I wonder if you are going beyond that, because this is speculation, and I can tell you exactly what it is going to be. The question I am going to get to in a minute is natural gas on these new IPPs. It is going to be taken out of your distribution system and put into your generating facility. How are you going to deal with the gas in your distribution system?

There are a lot of things here that this fellow has not all the cobwebs cleared up yet. I was pleased about the coal situation, but then we get into the possibility of clean coal technologies. If this thing passes, I have a real problem.

But I did not mean to lecture you. You are doing good.

Mr. KEEGAN. I have a feeling I am about to do less well. [Laughter.]

Clearly, we are concerned about the high leveraging of those facilities, and there are reliability concerns.

But I think that there are actions that individual states can take to protect themselves.

I think that the fact that we are paying these entities on a production output basis means that we may be able to afford a higher reserve margin. We may be able to afford to have more of these facilities there available.

We have had a situation where you can have a utility plant go out of service for a year or 18 months. Ratepayers continue to pay depreciation charges on that investment and the O&M expenses associated with it without getting a single kilowatt out from that plant.

With an IPP, they have assumed a lot of that risk. If they are not producing, then the ratepayers are paying nothing for the investment that went into that facility.

So my first answer is we have to look at the reserve margin, and since ratepayers are not paying for down time we may be able to afford a higher reserve margin.

I also think during the learning process that we are in and the evolutionary stage that we are in while we gather more information about the market and the reliability of these facilities, states can undertake to do things like site banking, where a utility identifies what it would build if, in fact, it had a capacity need.

It goes through and files the petitions that it would have to file, the environmental impact statements, et cetera, and gets all of the permitting process completed and over with and then essentially banks that approval process. So now if it does identify a need for capacity for one reason or another, it will have cut the lead time down for putting a facility like that in place from what is now four or four and a half years down to perhaps a year to 18 months.

So I think there are steps that states can take and are taking which will give us some degree of protection if, in fact, this market does not develop the way we think it is or the way we think it has the potential to develop.

But I would say initially that the development of this market, I think, from many perspectives is developing very well and has a significant potential for providing us with very reliable power over the long term, both in qualifying facilities and independent power producers.

Senator FORD. Mr. Chairman, Mr. Stalon said that he wanted to let the marketplace handle it all. In listening to your comments, you have a real concern about the marketplace, and you also have concern about the ability to produce the energy that is needed by your state, either for banking or whatever it might be. You make a judgment based on "if come", but that is still your responsibility.

The marketplace may be important to you, but that is just one part of the decision process that you have to make as a member of a public service commission, am I correct?

Mr. KEEGAN. I think that is very accurately stated, in that we want to use competitive market forces where we can, and I think there are significant opportunities to use competitive market forces to bring about the efficiency in the electric generation market which we have not had for the last number of years.

We are balancing that, however, with some insurance policy, some protection that we are going to have adequate reliable sources of power.

I do not believe, however that a lot of the statements that these facilities are not reliable are accurate, because we have seen in many parts of the country that, in fact, they are providing adequate and reliable supplies of electricity.

Ms. LACY. I would also like to add, Senator, that I think in a number of states, and I know in ours, the contracts entered into, especially the larger megawatt contracts, do allow the utility to go in and actually run the plant should there be something of a financial nature.

Senator FORD. In some places they build the utility and allow the company they have leased to to come in and run it on their own, or plants or built and 80 percent of the capacity is dedicated.

Whoever wins the Federal Government gets in, and I am concerned that the states are doing their job and are closer to the situation. The evolving situation is out there because 10 states have already started on it and everybody is improving. You have your own national association. You get into working back and forth, and you have your own peculiar problems.

I just wonder why we need such a Federal rule as it relates to getting into—whatever they do, it is not going to go away. It is going to stay there, it is going to get more stringent and things are going to happen because what you want to do for them in the states, they are all back out there and up and down the hall.

So that bothers me, and I would just as soon leave it to you.

Ms. **Lacy**. Senator, I do think that we cannot underestimate, though, the importance that the FERC does play, both from a legal standpoint, but also they have under the Chairman's direction really focused on this issue in a united way, which perhaps the states could not have. I think that has been very helpful.

I think all we are saying is we need to continue working with the FERC in our relative areas of jurisdiction. The states will continue to comment with the FERC, and I hope that they will continue to leave our jurisdiction to us, and we will do the same with them.

Senator **Ford**. Well, I understand that, but here we are, letting this supersede everything else that FERC has been talking about for some time. All of a sudden, this becomes a hot thing on the front of the stove.

We look at the selected bulk power transmissions and regulation, flexible transmission pricing and all those things, and all of a sudden they are on the back burner and we are out with IPPs and bidding.

It seems to me that all of a sudden this became the hot item, and I am not sure the states are ready for that yet, and I am not sure I am ready to suggest that they impose that on you yet. I think there are some things that the Federal Government ought to do.

Every one of you said as long as we retain the ability. Well, when a rule is passed up in this town you lose some of your ability. Maybe you want it to be transferred up here. I hardly believe that.

So I am very concerned about the comments that have been made by all three of you and by the FERC. Whatever you do, it is all down to state. Whatever they do up here is passed right over to you. Well, you are not indicating that it is broken, and I am not sure that every time——

Ms. **Lacy**. Senator, as I indicated in my testimony, it would have been very, very helpful for the states had the FERC made a determination on the legality of allowing some form of bidding.

In the PURPA area especially, they have adopted rules under section 210, and so we have to be operating within those rules, and it really has delayed some processes, at least in our state, and caused us to focus on some things that maybe we did not need to at that time.

So there is a role for the FERC to play, but I think it is a facilitating role as opposed to a directing role.

Ms. **Anderson**. I think also, on behalf of NARUC, that the kind of thing that Chairman Lacy has described in our judgment could be handled through a clarifying manner something short of the whole rulemaking process, because it is going on.

Senator **Ford**. One more question.

Have any utilities in your states diversified into unregulated activities?

Ms. **Lacy**. Yes.

Ms. **Anderson**. Yes.

Mr. **Keegan**. Yes, although all related to essentially the electric utility industry. We do have some utilities that have an unregulated subsidiary becoming involved in the development of cogeneration, all independent power producers.

Senator **Ford**. How do you all guard against cross-subsidization?

Ms. **Lacy**. Our utilities have done it thorough the holding company as opposed to actual subsidiaries of the utility; of course, Dominion Resources, the holding company.

In Virginia we have a very strong set of laws which provide that we have to approve, certainly, all construction but also all securities issued and all affiliates' agreements.

So we have the ability. First of all, it is structurally separate, but we also have the ability to look at the flow of personnel, people and other types of contractual arrangements among and between the affiliates and the parent and its holding company.

Senator **Ford**. So you need nothing up here to protect you, then?

Ms. **Lacy**. With all due respect, no, sir. I think we are doing fine.

Senator **Ford**. Would anybody else like to comment?

Mr. **Keegan**. I think that is accurate. With that diversification that has taken place, it has also been under a holding company structure where they are wholly-separate subsidiaries.

In the one or two instances where there is an unregulated subsidiary to a utility company we have a cost allocation process, I think, that provides us with the necessary protection.

Senator **Ford**. So you do not need a rule to help you do your job of protecting against cross-subsidization or misallocation of costs and those sorts of things?

Ms. **Lacy**. I said no on behalf of Virginia. I could not speak for other states.

Senator **Ford**. That is fine. The Commonwealth of Kentucky and the Commonwealth of Virginia understand things much better than other states. [Laughter.]

Thank you, Mr. Chairman.

The **Chairman**. Thank you, Senator Ford.

Thank you very much, Commissioner Anderson, Commissioner Keegan and Chairman Lacy. It has been an excellent panel.

We will have some written questions if you would be willing to receive those from both sides of the aisle.

With thanks, we will recess until 9:30 a.m. tomorrow.

[Whereupon, at 12:22 p.m., the committee recessed, to reconvene Tuesday, February 2, 1988.]

FERC ELECTRIC PROPOSAL

TUESDAY, FEBRUARY 2, 1988

U.S. SENATE,
COMMITTEE ON ENERGY AND NATURAL RESOURCES,
Washington, DC.

The committee met, pursuant to notice, at 9:35 a.m., in room SD-366, Dirksen Senate Office Building, Hon. J. Bennett Johnston, chairman, presiding.

OPENING STATEMENT OF HON. J. BENNETT JOHNSTON, U.S. SENATOR FROM LOUISIANA

The CHAIRMAN. The hearing will come to order.

We have a very interesting morning. We are here for the second day of hearings on proposals before the Federal Energy Regulatory Commission to reform implementation of PURPA and bring more market competition to the generation of wholesale power.

Yesterday we heard testimony from the members of the Commission. We learned that the proposal by Chairman Martha Hesse would give States the option of using or not using competitive bidding in their implementation of PURPA.

We also heard that in the event a State chooses competitive bidding, such bidding would not necessarily have to comprehend all sources of supply.

Finally, Chairman Hesse emphasized that her proposal would give utility subsidiaries the opportunity to serve their parent company's needs on the same price terms as independent power producers, or IPPs, provided that certain guidelines are met.

Following the FERC testimony a trio of State regulators expressed cautious optimism that FERC competitive bidding proposals can work to the benefit of all parties if it is truly voluntary and if the states are given flexibility in the implementation.

Today we are moving from the views of regulators to the views of those who must deal with regulation. First we will hear from a panel of utility executives. Following that, we will receive testimony from various other parties having an interest in FERC's activities, including QF and IPP developers, industrial electric consumers, public power and consumer groups.

It will come as no surprise that utilities do not share all views of the non-utilities. But I suspect that we will see a difference of opinion even within the utility industry—we don't suspect it; we know it—concerning the merits of the proposal before FERC. I look forward to hearing what I expect to be animated discussion this morning.

Before we recognize our first witness, Senator McClure, did you have any comments?

Senator McCLURE. I have no comments at this time, Mr. Chairman.

The CHAIRMAN. My suggested order I think Mr. McCollam—it would be McCollam, Peevey, Geist, Disbrow and Ellis—that order so that we can switch back and forth between those who are for and against. So, we'll begin with Bill McCollam, President of EEI.

We have got an awful lot of witnesses. Why don't we try to get about a 7-minute summary by the witnesses in chief to give us time.

STATEMENT OF WILLIAM McCOLLAM, JR., PRESIDENT, EDISON ELECTRIC INSTITUTE

Mr. McCOLLAM. Mr. Chairman, Senator McClure, my name is William McCollam, Jr. I am President of the Edison Electric Institute, which is the association of investor-owned electric utilities. I'd like to thank the committee for its invitation to discuss proposals being advanced by FERC, some of which we fear could result in far greater changes to our Nation's electric supply system than is generally believed. As you know, I have a full statement. It has been filed for the record, and I will attempt to summarize that statement briefly here.

Over the years vertically integrated electric utilities have fulfilled their obligation to serve very well for the benefit of all electric consumers. Whatever flaws may exist in the current system, it has been able to produce reliable power even during times of severe economic stress. The industry is not, in fact, in a crisis situation. We do not believe there's a need for a major restructuring of this industry as has been suggested. If it's desirable to introduce change in the regulatory system, that change should and can take place gradually. It is better to proceed in a deliberate and measured way than to risk the disruption that might result from rapid, untested change.

As you know, the FERC chairman and her staff have now advanced a proposal that would create a privileged class of electric power generators that would not be subject to traditional regulation. These entities would be known as independent power producers, IPPs. This goes well beyond a merit selection system for qualifying facilities under PURPA. Electric utilities are open to a number of approaches which should give them greater flexibility to choose future power supply options. However, if this is meant as a substitute to our current ability to satisfy our own customer needs, then that would represent a radical restructuring of the industry which we don't believe is justified.

In a recent order the Commission suggested that it may be subscribing to this approach. In a footnote, an IPP is defined as an entity which is not affiliated with franchised utilities in the markets in which IPPs sell power. The industry could not support such a definition. In fact, our board of directors at its January meeting unanimously agreed that utilities must be able to build for themselves either under traditional regulation or to compete as an IPP on the same terms as other IPPs in or outside of their service territories.

If the purpose of relaxing regulations for IPPs is to foster additional power supply options at a competitive price, then it is basically wrong and unwise to forbid the most experienced supplier from serving its own customers. This would limit competition. Forbidding utilities from competing effectively to serve their own needs either as an IPP or under regulation would be a step backward. It certainly would not be a step toward a more competitive market and a more reliable electric system. It would inhibit our flexibility, not enhance it.

Furthermore, utilities must be able to compete on the same terms as independent IPPs. For example, an IPP can be financed entirely through debt, a less expensive method of financing. However, regulated utilities are usually required to maintain a balanced structure of debt and equity to insure more financial stability in order to carry out their obligation to serve. If utilities are required to maintain those ratios, IPPs clearly would have a significant financial advantage.

In addition, an IPP can sign long-term, fixed rate contracts allowing it to retain all the benefits of reduced construction or operating costs. It can also protect itself from the consequences of reduced demand for its power by take-or-pay contracts.

These barriers to effective utility participation should be removed. The utilities believe they can compete with IPPs given an equal chance.

Also, I would like to mention, as elaborated in my testimony, the Public Utility Holding Company Act does place certain restrictions on utilities and their subsidiaries which would effectively shut them out from the IPP market altogether.

I would urge the Senate to look carefully at any program which prevents utilities from serving their own customers.

Another principle adopted unanimously by the EEI board is that utilities should not be required to buy from IPPs. The decision to buy or not to buy must be a truly voluntary one, of course, subject to the appropriate state regulatory review. A truly competitive market gives the purchaser the freedom to choose among a variety of power supply sources.

EEI directors adopted a third principle which states that the host utility must maintain control over the non-price factors affecting plants which will serve their customers. This doesn't mean the utility can design specifications to exclude competition. But utilities must be able to evaluate bids based on system and plant reliability, maintenance scheduling, dispatchability, and other operational characteristics, as well as fuel diversity, financial reliability and, of course, adequate security for long-term performance. These same factors are used by utilities in building their own plants.

The fourth principle is that all transmission must be truly voluntary, recognizing that voluntary transmission can be facilitated by more flexible pricing. The current system of voluntary opening up of transmission benefits all customers. As the committee knows, bulk electricity can't be effectively stored. Electricity must be available to consumers instantaneously on demand.

Finally, our industry feels very strongly that the Commission must proceed expeditiously with reforms to PURPA implementation. FERC must not consider the IPP proposal as a panacea for correcting the abuses in PURPA implementation. These abuses must be addressed promptly to insure that PURPA reforms can be implemented by all states. Without this reform, electric consumers will continue to be harmed as was spelled out and a good record made during the regional hearings on PURPA reform.

Throughout this discussion of IPPs, our industry has debated one fundamental question. Is this proposal simply trying to enhance our power supply options, or is it just one piece of a large plan to reexamine the broader questions of national energy policy in a way that will lead to a major restructuring of our industry?

Unfortunately, we as an industry are still not certain to the answer to that question. The FERC staff has indicated in a technical conference that they were simply trying to enhance further power supply options. However, as we discussed previously, utilities may in fact be forbidden from owning IPPs in their own service territories, which to me means that we can no longer build plants to serve our own customers. That consequence can severely impact the structure and performance of the industry.

After months of debate, major questions remained unanswered by FERC. Our industry does not believe that the need for a radical change in energy policy or in the industry's structure has been documented. Even if such a need existed, that type of change should occur only with a careful review by Congress. We would encourage both this committee and others in the Congress to conduct further hearings after the FERC notices of proposed rulemakings are published. Once the details are revealed—and I remind you we have not seen those details yet—we urge FERC to allow ample time for Congress and the public to assess the impact this proposal will have on a national energy policy and the economy. We believe the public has a right to know if this proposal will truly be in their long-term best interest.

We appreciate very much the forum this committee has provided the industry and for the opportunity to participate in the continuing dialogue on these issues. And thank you, Mr. Chairman.

[The prepared statement of Mr. McCollam follows:]

TESTIMONY OF WILLIAM McCOLLAM, Jr.
BEFORE THE UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
February 2, 1988

I. INTRODUCTION

Good morning Members of the Committee. My name is William McCollam, Jr. I am President of the Edison Electric Institute (EEI), the association of the nation's investor-owned electric utilities. I thank the Committee for its invitation to discuss proposals being advanced by the Federal Energy Regulatory Commission (FERC).

Over the years, the current system of vertically integrated utilities has worked very well for the benefit of electric consumers. The Federal Power Commission noted in 1967 that the industry "has a superb record of supplying low-cost power on a reliable basis." That was before the "energy crisis" of the 1970s. Even during the energy crisis, the Department of Energy (DOE) noted, electric utility performance in the United States has been excellent. At a time when natural gas service was cut off to thousands of consumers, and shortages of gasoline created lines throughout the country, DOE added that "the lights still go on virtually every time the customer flips the switch." Whatever flaws may exist in the current system, it has been able to produce reliable power, even in times of severe economic stress. Seen in retrospect, that is a remarkable achievement.

In view of this record, we are not in a crisis situation requiring a major restructuring of the industry. If it is desirable to introduce change in the regulatory system, that change can take place gradually rather than risk disruption to the Nation's electric supply system that might result from rapid, untested change.

Although the overall electric system has worked effectively to provide adequate and reasonably priced electric service to consumers, the utility industry has had a long-standing concern with the flaws in the implementation of the Public Utility Regulatory Policies Act (PURPA) in some regions. The FERC held a series of regional hearings last year which we believe built a solid record of evidence that implementation of PURPA, in several areas, has had detrimental effects on utility consumers.

In those regional hearings, EEI emphasized that electric consumers should not be required to pay more for power from cogeneration and small power production facilities than the costs which are truly avoided. To ensure proper avoided cost payments, EEI endorsed the concept of merit selection among alternative sources of PURPA qualifying facilities (QFs), which could be based on competitive bidding, negotiation, or other means, to fulfill a utility's future capacity and energy needs. We encourage

FERC to make reforms in PURPA implementation its top priority.

As you know, the FERC Chairman and Staff have now advanced a proposal which goes further than merit selection for QFs, by proposing to create through a generic rule, a new class of electric power generators that would not be subject to traditional regulation. These entities are called Independent Power Producers (IPPs). We support the idea that utilities should have freedom to choose among a broad range of power supply options, and believe that certain provisions must be included if FERC's actions are to serve that objective. We do not believe that there is any need for a radical restructuring of our industry.

If FERC proceeds with this proposal, EEI's Board of Directors has unanimously agreed on a set of principles which must be incorporated in any regulatory changes to meet the long term best interests of electric consumers. I will discuss these principles briefly.

II. PRINCIPLES WHICH MUST GOVERN IPP REGULATION

First, utilities should not be required to buy from IPPs. The decision to buy or not to buy must be truly voluntary, subject to appropriate state regulatory oversight. In a competitive market, the purchaser is free to choose among various competing alternatives. If you limit that freedom, so that the purchaser has no choice but to buy from a particular supplier, then that supplier may charge excessively high rates or provide inadequate service.

In an article prepared for EEI's Electric Perspectives magazine, FERC Chairman Hesse agreed that "Unlike QF producers, they (IPPs) would have no legally mandated right to sell power to a local utility...Utilities would have no legal obligation to contract with an IPP." We believe this is a critical principle to maintain in FERC's proposed regulatory changes.

Under federal and state regulation, the obligation to serve consumers rests with electric utilities. Having that obligation, utility management must be left with the flexibility to decide how to fulfill that obligation, subject to appropriate state commission review. If utilities are forced to purchase from IPPs, they will be unable to protect electric consumers against inefficient power supply decisions. This is not to say that where IPPs can provide reliable and low cost power, utilities will not purchase from them. There are numerous examples today of utility purchases from independent producers.

Our experience from PURPA has proven that an involuntary system can hurt consumers. That is why a competitive system has to be voluntary. Accordingly, states must not be forced to adopt an all-source competitive bidding system, and utilities must have the flexibility to choose among power supply alternatives, subject to state commission review, recognizing that FERC oversight may be necessary in the case of multi-state utilities.

Second, utilities must be able to build for themselves either under traditional regulation, or compete as an IPP on the same basis as other IPPs, in or outside of their service territories. If the purpose of relaxing regulation of IPPs is to enhance power supply options available to utilities, it makes no sense to forbid the most experienced supplier from building to serve its own customers. That actually limits competition, and reduces the number of power supply options. Forbidding the host utility from the option of building under regulation or competing through an IPP would actually be a step backward, rather than a step towards a more competitive market and reliable electric system.

For the same reason, it is not enough simply to let the host utility compete through a regulated plant, and expect it to compete effectively with unregulated IPPs. A regulated plant cannot compete equally with an unregulated IPP, for a number of reasons. For example, an IPP can finance a stand alone project almost entirely through debt, with up to 100% leveraged financing, while a regulated utility, as an integrated business organization, must maintain a balanced capital structure including more expensive equity financing in order to have the financial strength and flexibility to meet its long-term obligation to serve. This gives unregulated plants a very significant financial advantage.

In addition, an IPP can sign long-term fixed-rate contracts which allow it to retain all of the benefits of reduced construction or operating costs, and it can protect itself from reduced demand for its power by take-or-pay contracts. These take-or-pay contracts serve to lower the IPP's cost of capital but can increase the utility's cost of capital. The IPP has the security of the long-term contract; however the utility incurs the obligation of the fixed payment along with the regulatory uncertainty of costs recovery. Further, excessive dependence on IPP power, as well as QF power, could potentially reduce a utility's ability to fulfill its obligation to serve its customers during extraordinary times, and in turn reduce the utility's credit rating thereby increasing its incremental cost of capital. All together these factors give unregulated plants a very significant financial advantage.

An unregulated IPP has only a contractual obligation. Experience with fuel contracts and others has demonstrated that those contracts, no matter how well written, do not always assure performance over the long term. Furthermore, if an IPP for reasons related or unrelated to its contract with the utility, were forced to file for protection under the bankruptcy laws, its supply contract with the utility could be abrogated. In short, whatever the contract may say, it is the utility which has the legal obligation to keep the lights on.

Due to these and other regulatory requirements, a regulated plant cannot realistically be expected to compete on the same basis as an unregulated IPP. We are not saying that these regulatory requirements are not useful. In fact, many of these requirements are needed to insure that electricity is there when needed. We are saying that, in order for competition to be effective, the host utility must have the option to compete on the same basis as IPPs. We want to be certain that if FERC proceeds with a rulemaking, any promises of utility participation are realistic and provide for full utility participation.

In response to this argument, the Staff has indicated that if an IPP affiliated with a utility participates in bidding to serve a utility's own needs, its involvement raises issues which need to be addressed because, in the Staff's view, the host utility has market power and can discriminate in favor of its own IPP. (See "Regulating Independent Power Producers: A Policy Analysis", issued October 13, 1987.) In a recent order (See Orange & Rockland Utilities, Inc., Docket No. ER88-112-000, issued January 15, 1988) the Commission suggested that it may be subscribing to this approach by defining IPPs as entities which have "no significant market power," are not "affiliated with franchised utilities in the markets in which the IPPs sell power," and "have limited or no control of transmission facilities essential to their customers." The answer to the perceived problem that this definition serves to address is simple: when the host utility's IPP bids, the state commission should review the selection process to the extent necessary to prevent undue discrimination. The bidding and selection process itself must also be structured to ensure fair evaluation.

State commissions are fully empowered to oversee the selection process and make certain that it is fair. They have the regulatory flexibility and the expertise to prevent discrimination. Federal discrimination against host utility IPPs would be a serious infringement on the state commissions' traditional right to make decisions about generating plant construction in their own states. A prohibition like that could also deprive consumers of one of their most economical and viable power supply options, and could reduce the amount of overall competition.

Biases are also created against fair utility participation in a competitive bidding system by other policies which may be beyond FERC's control. For example, the Public Utility Holding Company Act (PUHCA) places certain restrictions on utility companies and subsidiaries which may shut out from the IPP market altogether utilities, and other industrial participants which would be considered utilities if they participated as IPPs. Before the FERC continues further on this course, FERC must determine how to resolve this imbalance in order not to discriminate against present and would-be participants in the nation's electric industry. Additional regulatory biases exist in the form of numerous direct and indirect subsidies to public power entities who might participate in IPP markets.

Our industry cannot support any program which either intentionally or unintentionally forbids utilities from building generation, or competing on the same basis as others to serve their own loads or other utility loads.

The third principle is that the host utility must maintain control over the non-price factors affecting the plants which will serve its own customers. This does not mean that the utility can design the specifications to exclude competition. It does mean that, under normal regulatory review procedures, the utility must decide how much capacity it needs and when it needs it. The utility must be free to evaluate system and plant reliability, maintenance scheduling, dispatchability and other operational characteristics, fuel diversity, financial reliability and adequate security for long-term performance, and numerous other factors, just as the utility does when it builds its own plants.

As the American economy has become more service oriented and dependent on electronically sensitive equipment, the quality of electric service has become more and more critical. Consideration of non-price factors which may affect quality of service is thus essential. These factors are often difficult to quantify precisely, but are essential for maintaining adequate and reliable electric service. Under the current framework, the utility has the right to control these factors. This control becomes even more important when there is increased reliance on third parties to supply a significant amount of a utility's future generation needs. Control of these non-price factors is a critical element of any successful power supply scenario, whether it relies on third parties or not.

The fourth principle is that all transmission must be truly voluntary recognizing that voluntary transmission can be facilitated by more flexible pricing. Transmission issues must be considered in a separate proceeding apart from IPPs. The current voluntary system of transmission has benefited electric consumers. Any new system must not change the voluntary nature of access to transmission, or allow IPPs to "cherry-pick" utility customers. Mandatory access is not a necessary element of the IPP proposal. The Commission can further facilitate voluntary bulk power supply transactions by promoting appropriate pricing schemes and related terms and conditions for transmission services which will protect utility customers from economic harm and provide users of transmission services with proper economic signals. (See "Pricing of Transmission Services in Bulk Power Markets: Factors For Consideration", Edison Electric Institute, December 1987)

Finally, whatever the Commission does on IPPs, it must proceed expeditiously with reforms in PURPA. Through the extensive record developed in its regional PURPA conferences, FERC has established a solid basis to reform PURPA implementation and restore it as a vehicle to promote conservation, efficiency, and customer equity -- the fundamental purposes of the law which have been frustrated by current flaws in implementation. FERC must not consider the IPP proposal as a panacea for correcting the abuses in PURPA implementation. Even if FERC approves all-source competitive bidding, many states may not adopt competitive bidding even for QFs under PURPA. In those states, electric consumers will continue to be harmed unless the abuses in PURPA implementation are corrected.

III. RELATIONSHIP OF THE IPP PROPOSAL TO NATIONAL ENERGY POLICY

Throughout the discussion of IPPs, our industry has debated one fundamental question: is this proposal simply trying to enhance our power supply options or, is it just one piece of a larger plan to reexamine the broader questions of national energy policy in a way that will lead to a major restructuring of our industry? Unfortunately, we still are not certain of the answer to that question. The FERC Staff indicated, in the technical conference, that they are simply trying to enhance future power supply options. However, as discussed previously, utilities may be forbidden from owning IPPs in their own service territories, which to me means that we can no longer build plants to serve our own customers, a consequence that can severely impact the structure and performance of the industry. Moreover, Chairman Hesse has announced, as part of her electricity strategy, that she also intends to address in upcoming rulemakings bulk power pricing, incentive regulation, and transmission related issues. Before an electric strategy is put in place that determines our future national energy policy, Congress, the industry and the public must be confident that all the pieces will fit back together in a way that creates a better system.

IV. CONCLUSION

After months of debate, many important questions remain unanswered by FERC. Our industry believes that, except for changes to PURPA implementation, FERC has not shown the need for a radical change in energy policy, or in the structure of our industry. Even if there were such a need, that type of change should not be done without careful review by Congress. For this reason, we urge this Committee to stay involved in the process. We encourage this Committee, as well as others in Congress, to conduct further hearings after the NOPRs have been published. Once all the details are revealed, we urge FERC to allow ample time for Congress and the public to assess the impact of this proposal on national energy policy, national security and the economy and to determine whether it is in the best long-term interests of electric consumers. We commend the Committee for its vigilance in this matter and appreciate your providing us an opportunity to participate in the continuing dialogue on these far-reaching issues.

The Chairman. Thank you very much, Mr. McCollam. Next we would like to hear from Mike Peevey.

STATEMENT OF MICHAEL R. PEEVEY, EXECUTIVE VICE PRESIDENT, SOUTHERN CALIFORNIA EDISON CO.

Mr. Peevey. Thank you, Mr. Chairman. Mr. Chairman, my remarks today are on behalf of Southern California Edison Company, as well as the Alabama Power Company, Georgia Power and Mississippi Power, Gulf Power, Southern Company Services and Philadelphia Electric.

The FERC obviously has a very broad agenda. It includes reduced regulation of selected bulk power transactions, use of competitive bidding to implement PURPA, proper determination of administered avoided cost, transmission access and incentive regulation. I would like to comment on the full FERC agenda, but to date the FERC has made few specific statements about any of its proposals except the first one, the so-called IPP proposal. This is a serious problem. It is difficult to discuss part of an agenda without knowing the overall plan at least in general concept. If there is a comprehensive plan, it should be discussed as a package, not piecemeal.

One result of the FERC agenda, however, seems certain. If adopted, it will increase our reliance and decentralize third party power production. Yet, the jury is still out on how much decentralized power can be absorbed without jeopardizing system reliability. Our caution is warranted. Utilities and their state regulators have legitimate concerns. Their ability to decide for themselves how dependent they wish to become on unregulated power production should not be changed.

Last spring the FERC conducted an extensive set of regional hearings to gather input regarding the implementation of PURPA. A short time later many of us were disappointed to find that the FERC was more interested in sailing into uncharted waters than correcting recognized PURPA abuses.

Across the country utilities have experienced well-publicized problems with the implementation of PURPA. Because of the implementation problems in California, Edison is awash in QF contracts. We estimate our total QF payments will be as high as $1.4 billion per year by 1990. This will exceed our projected avoided cost by more than $300 million per year. In 1987 alone, overpricing of QF power cost our customers about $130 million, and in 1988 we forecast these overpayments will exceed $200 million. These overpayments hurt our customers.

The FERC should concentrate its immediate efforts on revising existing FERC regulation to correct inequities and subsidies and to promote the congressionally enacted goals of generation resource diversity, energy conservation and increased fuel efficiency. Let's fix the problems of PURPA first, not worsen the situation by extending the deregulation of generation to non-QFs.

One of Edison's foremost concerns with the FERC proposal is that utilities and their affiliates could be unfairly excluded from building new generation. We do not believe that the public interest would be served by systematically excluding the producers with the most experience and expertise. We are told that the FERC is simply interested in expanding available generation options. But what is involved here is much more than an expansion of available options.

FERC proposes a fundamental restructuring of the generation market with a very significant tilting of that market away from vertically integrated utilities in favor of unregulated third party production. The problem is that regulated generation plant alone cannot compete equitably with an unregulated IPP. An IPP can use debt-leveraged financing to achieve an unfair advantage over regulated generation, which is subject to strict capital structure regulation. On this tilted playing field, the vertically integrated utility structure, which has provided this Nation with reliable, inexpensive power for the past half century, will be dismembered.

Clearly, if third party generators are to be deregulated—and we are not advocating that they should be—then utilities must be allowed to compete with them on a level playing field as unregulated IPPs. Yet the criteria for determining IPP status proposed by the FERC staff at last October's technical conference and adopted in a recent FERC decision would discriminate against utilities and their affiliates. For instance, in Edison's case, these criteria would effectively exclude us and our affiliates from participating as IPPs anywhere west of the Rocky Mountains. This is not in the best interest of our customers nor of the Nation.

Edison believes that the FERC has neither a specific plan nor the legal authority to establish a level playing field for all-source bidding. For example, to treat all potential players equally, PURPA would have to be modified to allow utilities to totally own QFs. The Public Utilities Holding Company Act would have to be modified to remove barriers to certain entities becoming independent power producers. And municipal utilities and rural electric cooperatives would have to forfeit their tax exempt status and preferential access to federally marketed power.

In short, far-reaching policy issues and legislative changes would be required. Until such time as Congress has reviewed the policy and statutory modifications required to level the playing field, FERC should refrain from implementing final rules in this area.

At this point I want to point out, I want to say that despite the claims of some, current industry structure and regulation have served most customers well. If Federal policymakers are to proceed based on some rebuttable presumption, that presumption should be that the current system works well. Edison is not opposed to regulatory change, but change should be evolutionary, not revolutionary, and built upon the solid foundation of a successful industry.

The difficulties the industry has experienced in the recent decade were the result of a confluence of unusual events, including OPEC price shocks, double digit inflation, high interest rates, costly nuclear plant construction, unforeseen slowing in the growth of demand and mistakes in implementing PURPA. If anything, the industry and its regulatory institutions have demonstrated their resilience by weathering these storms. Could a system based on arm's length contracts with unregulated electricity producers have weathered these storms better? I think the answer is clearly no. There would have been widespread uncertainty and threatened unreliability as unregulated generators sought to renegotiate their contracts while threatening to shut down their generation.

If FERC believes the current system does not work, the burden of proof should be on the FERC. Edison believes that FERC could provide a more valuable public policy service if it initiated a detailed analysis of the state of the industry rather than plunging head first into uncharted waters. The last time FERC conducted such an analysis was in 1970. This broad overview of the industry titled "A National Power Survey" was conducted by the Federal Power Commission. It was a valuable tool to the FPC, the Congress and the industry. It would seem that a similar national survey would be both timely and valuable now and provide the supportable base for development of any new policy.

Electric utilities have traditionally owned and operated their facilities as integrated systems as part of their obligation to serve their customers need. This integrated control of facilities is the basis of the enviable reliability record achieved by U.S. utilities. Exclusive reliance on market forces and a competitive bidding system to meet future needs create significant risks for consumers. We do not believe that the complex and interdependent planning and operation decisions now made within the internal command and control of a single utility could be made as efficiently and reliably through a system of arm's length contracts with independent generators ultimately enforceable only through litigation in the courts. After all, litigation does not produce electricity.

Mr. Chairman, I have a few other comments, but let me conclude—I see the light there—by making several specific points.

First, Congress did not pass the Federal Power Act simply to control monopolistic pricing. It also sought to control financial, accounting and corporate structuring practices it believed threatened the reliability of electricity supply. The FERC should not modify its regulations implementing the Federal Power Act without a convincing showing that such changes are consistent with the legislative intent of the FPA and will produce demonstrable improvements in the performance of the industry without threatening reliability.

Second, if Federal regulation is to be reduced, it must be reduced on an equitable basis to avoid systematically discriminating against utilities and their affiliates. The national interest would not be served by excluding utilities and their affiliates from acting as IPPs, thereby placing them at a significant competitive disadvantage in constructing new generation.

Finally, the FERC should not take any action which would realign the historic division of regulatory responsibility between the Federal and state governments. Utilities and their state regulators should maintain their autonomy over the resource planning process. If a bidding process is adopted, there should be no compulsion that it be an all-source bidding process. Utilities and their state regulators should not be precluded from using traditional means of choosing new generation resources if they so desire.

In closing, Mr. Chairman, I would like to thank you and your committee for allowing me the opportunity to explain our viewpoint on this vitally important matter. We urge the committee to continue to oversee this process and, if necessary, conduct further hearings after the Commission has issued its NOPRs. Thank you very much.

[The prepared statement of Mr. Peevey follows:]

Statement

of

MICHAEL R. PEEVEY

Executive Vice President

SOUTHERN CALIFORNIA EDISON COMPANY

Before

the

Committee on Energy and Natural Resources

U.S. SENATE

Washington, D.C.

February 2, 1988

Mr. Chairman, members of the Committee, Southern California Edison appreciates this opportunity to discuss recent proposals by the FERC to deregulate portions of the electric utility industry.

The FERC has a very broad agenda. It includes reduced regulation of selected bulk power transactions, use of competitive bidding to implement PURPA, proper determination of administered avoided cost, transmission access, and incentive regulation. I would like to comment on the full FERC agenda. But, to date, the FERC has made few specific statements about any of its proposals except the first one -- the so-called IPP proposal. This is a serious problem. It is difficult to discuss each part of the agenda without knowing the overall plan, at least in general concept. If there is a comprehensive, overall plan, it should be discussed as a package, not piecemeal.

One result of the FERC agenda, however, seems certain. If adopted, it will increase our reliance on decentralized, third-party power production. Yet, the jury is still out on how much decentralized power can be absorbed without jeopardizing system reliability. Caution is warranted. Utilities and their state regulators have legitimate concerns. Their ability to decide for themselves how dependent they wish to become on unregulated power production should not be changed.

Last Spring the FERC conducted an extensive set of regional hearings to gather input regarding the implementation of PURPA. A short time later, many of us were disappointed to find that the FERC was more interested in sailing into uncharted waters than correcting recognized PURPA abuses.

Across the country, utilities have experienced well-publicized problems with the implementation of PURPA. Because of implementation problems in California, Edison is awash in QF contracts. We estimate our total QF payments will be as high as $1.4 billion dollars per year by 1990. This will exceed our projected avoided cost by more than $300 million per year. In 1987 alone, overpricing of QF power cost our customers about $130 million. In 1988, we forecast these overpayments will exceed $200 million. These overpayments hurt our customers, and cause us difficulty in maintaining electricity prices that are competitive with many of our largest customers' alternative sources of power. The FERC should concentrate its immediate efforts on revising existing FERC regulations to correct inequities and subsidies, and to promote the Congress-enacted goals of generation resource diversity, energy conservation and increased fuel efficiency. Let's fix the problems with PURPA, not worsen the situation by extending the deregulation of generation to non-QFs.

One of Edison's foremost concerns with the FERC proposal is that utilities and their affiliates could be unfairly excluded from building new generation. We do not believe that the public interest would be served by systematically excluding the producers with the most experience and expertise. We are told that the FERC is simply interested in expanding available generation options. But what is involved here is much more than an expansion of available options. FERC proposes a fundamental restructuring of the generation market with a very significant tilting of that market away from vertically integrated utilities in favor of unregulated, third-party production. The problem is that a regulated generation plant cannot compete equitably with an unregulated IPP. An IPP can use debt-leveraged financing to achieve an unfair advantage over regulated generation, which is subject to strict capital structure regulation. On this tilted playing field, the vertically integrated utility structure, which has served this nation with inexpensive, reliable power for the past half century, will be dismembered.

Clearly, if third-party generators are to be deregulated -- and we are not advocating that they should be -- then utilities must be allowed to compete with them on a level playing field as unregulated IPPs. Yet the criteria for determining IPP status proposed by the FERC staff at last October's Technical Conference and adopted in a recent FERC decision would discriminate against utilities and their affiliates. For instance, in Edison's case, these criteria could effectively exclude Edison and its affiliates from participating as IPPs anywhere west of the Rocky Mountains. This is not in the best interest of our customers or the nation.

Edison believes that the FERC has neither a specific plan, nor the legal authority, to establish a level playing field for all-source bidding. For example, to treat all potential players equally, PURPA would have to be modified to allow utilities to totally own QFs; the Public Utilities Holding Company Act would have to be modified to remove barriers to certain entities becoming independent power producers; and municipal utilities and rural electric cooperatives would have to forfeit their tax exempt status and preferential access to federally marketed power. In short, far-reaching policy issues and legislative changes would be required. Until such time as Congress has reviewed the policy and statutory modifications required to "level the playing field," FERC should refrain from implementing final rules in this area.

At this point I want to say that, despite the claims of some, current industry structure and regulation have served customers well. If federal policymakers are to proceed based on some rebuttable presumption, that presumption should be that the current system works well. Edison is not opposed to regulatory change. But change should be evolutionary, not revolutionary, and built upon the solid foundation of our successful industry.

The difficulties the industry has experienced in the past decade were the result of a confluence of unusual events, including OPEC price shocks, double-digit inflation, high interest rates, costly nuclear plant construction, unforeseen slowing in the growth of electricity demand, and mistakes in implementing PURPA. If anything, the industry and its regulatory institutions have demonstrated their resilience by weathering these storms. Could a system based on arm's-length contracts with unregulated electricity producers have weathered these storms better? The answer is clearly "No". There would have been widespread uncertainty and threatened unreliability as unregulated generators sought to renegotiate their contracts while threatening to shut down their generation.

If FERC believes the current system does not work, the burden of proof should be on the FERC. Edison believes that FERC could provide a more valuable public policy service if it initiated a detailed analysis of the State-of-the-Industry rather than plunging headfirst into uncharted waters. The last time FERC conducted such an analysis was in 1970. This broad overview of the industry, titled "A National Power Survey," was conducted by the Federal Power Commission (FPC). It was a very valuable tool to the FPC, the Congress and the industry. It would seem that a similar national survey would be both timely and valuable, and provide the supportable base for development of any new regulatory policy affecting the basic supply of electricity for consumers.

Electric utilities have traditionally owned and operated their facilities as integrated systems, as part of their obligation to serve their customers' needs. This integrated control of facilities is the basis of the enviable reliability record achieved by U.S. utilities. Exclusive reliance on market forces and a competitive bidding system to meet future electricity supply creates significant risks for consumers. We do not believe that the complex and interdependent planning and operating decisions now made within the internal "command and control" of a single utility could be made as effectively and reliably through a system of arm's-length contracts with independent generators ultimately enforceable only through litigation in the courts. After all, litigation does not produce electricity.

We have similar concerns about the long-term staying power of third parties. A utility's generation assets are dedicated to the public service and subject to utility laws. On the other hand, the obligations of independent producers are governed solely by contract law. There is no guarantee that they will be honored through recessions, individual industry slowdowns, or other situations when it is unprofitable to do so.

In a way, FERC's IPP proposal is a solution in search of a problem. There are no restrictions in the Federal Power Act which prevent the development of IPPs. The FERC has already adopted a flexible rate-of-return policy allowing returns commensurate with the risks suppliers face in various market situations. In this regulatory climate, proposed IPPs such as Thousand Springs, Dineh, and Ocean State will be developed as local market conditions warrant. Indeed, Ocean State is already moving to the construction stage. In short, there is no evidence that present federal regulations are inhibiting the development of IPPs.

The economic advantages of non-utility generation are illusory. In many cases the projects are built by the same construction and equipment vendors used by utilities. The difference is that regulators wisely require utilities to maintain a high proportion of equity in their capital structures to better assure their financial integrity. By contrast, the non-utility generator typically has a capital structure which is highly leveraged. The result is both an uneven playing field and increased risks for consumers. Laws governing utility financial structure were adopted to remedy past abuses and assure a reliable supply of power for the nation. Unfair competition based on financial leveraging by non-utility generators would discriminate against utilities and threaten electric reliability.

Resource planning responsibility currently rests with utilities and their state regulators. The optimal balance of third-party and utility-owned generation in a utility's resource plan will differ from system to system and will only be understood as more experience is gained. Federal policy should not constrain the flexibility of utilities and their state regulators to choose the balance they believe is appropriate. The benefits of institutional diversity in the present state-federal regulatory system should be preserved. Essentially, we have 50 state laboratories each conducting different experiments and learning from one another. Experiments with bidding systems are now ongoing in several states. The FERC should not take any action which would inhibit these state experiments, or stifle or reverse state innovation.

Also, the notion that imperfect competition is preferable to imperfect regulation should be rejected. To the extent there is a problem with regulation, it lies with the prudency reviews carried out by some state regulators. But the IPP proposal will not eliminate prudency reviews. It will simply shift their focus from utility construction costs to third-party contracts. Thus, the ultimate solution to any insufficiency of investment in new generation caused by prudency problems must be sought through more meaningful regulatory reforms such as "rolling prudency reviews" -- not deregulation of selective bulk power transactions.

In concluding my remarks, I would like to make several points:

- First, Congress did not pass the FPA simply to control monopolistic pricing. It also sought to control financial, accounting, and corporate structuring practices it believed threatened the reliability of electricity supply. The FERC should not modify its regulations implementing the FPA without a convincing showing that such changes are consistent with the legislative intent of the FPA and will produce demonstrable improvements in the performance of the industry without threatening reliability.

- Second, if federal regulation is to be reduced, it must be reduced on an equitable basis to avoid systematically discriminating against utilities and their affiliates. The national interest would not be served by excluding utilities and their affiliates from acting as IPPs, thereby placing them at a significant competitive disadvantage in constructing new generation. Criteria such as those advocated by the FERC staff at the Technical Conference last October and adopted in the Commission's recent Orange and Rockland Decision are restrictive and discriminatory. Rather than trying to assist a particular predetermined class of entities with reduced regulation, FERC should be attempting to define a broader set of circumstances under which price regulation under the FPA can be loosened regardless of the identity of the entities involved. If the FERC cannot find ways to reduce bulk power market regulation consistent with these principles, then it should continue down its present course of adopting a flexible rate-of-return policy in regulating third-party producers.

o Finally, the FERC should not take any action which would realign the historical division of regulatory responsibility between the federal and state governments. Utilities and their state regulators should maintain their autonomy over the resource planning process. If a bidding process is adopted, there should be no compulsion that it be an all-source bidding process. Utilities and their state regulators should not be precluded from using traditional means of choosing new generation resources if they so desire.

In closing, Mr. Chairman, I would like to thank you and your Committee for allowing me the opportunity to explain Edison's viewpoint on this vitally important matter. We urge this Committee to oversee this process and, if necessary, conduct further hearings after the Commission has issued its NOPRs. Thank you.

The Chairman: Thank you very much, Mr. Peevey.

Next is Jerry Geist with Public Service Co. of New Mexico.

STATEMENT OF JERRY D. GEIST, CHAIRMAN AND PRESIDENT, PUBLIC SERVICE CO. OF NEW MEXICO

Mr. GEIST. Thank you, Mr. Chairman. It's a pleasure to be before this committee that boasts two members from New Mexico. But we were forced to observe that the most famous New Mexican in Washington today is number 36 of the Washington Redskins. [Laughter.]

The CHAIRMAN. Who is number 36?

Mr. GEIST. Timmy Smith.

The CHAIRMAN. The only one I knew about was the quarterback. [Laughter.]

Mr. GEIST. Well, round one to the Chairman.

Mr. Chairman, yesterday this committee heard from the Federal Regulatory Energy Commission and Chairman Hesse and her colleague Commissioners on an overview of three notices of proposed rulemaking which have been submitted by the FERC staff, which we believe, if implemented, will offer greater efficiency in the production of energy and hopefully improve the prospects of avoiding the supply shortage in the 1990s. And I would like to congratulate the Chairman and her Commissioners for providing the leadership and looking at problems facing the electric utility industry and more importantly, for directing the FERC staff to develop a proposal which, if in my opinion proceeded with certain modifications, provides sound incremental solutions.

You have heard, and you'll hear a lot more, discussion surrounding economic theory and legal justifications behind the FERC staff proposals. Rationale involving economic efficiencies and zones of economic influence and significant market power—these are all theories. But the philosophical beliefs in free enterprise and a market based economy must be accompanied by an understanding that electric power cannot be sold like pork bellies and we deserve some modification of some of the thoughts.

This morning I hope in a practical and pragmatic way to provide a business management justification for moving in the direction of increased competition in the generation of power.

The two NOPRs, which have been prepared to address implementation problems of PURPA, have attracted near consensus as to their importance and content. Many utilities are simply now today conduits for significant consumer subsidies to PURPA qualifying facilities whose development has been induced by artificial prices set as the avoided cost of the purchasing utility.

By permitting State public service commissions to establish voluntary QF bidding systems to determine true avoided cost, this problem can be corrected. Further, for those States which do not wish to adopt a bidding system for new capacity, FERC staff has prepared an NOPR to assist in developing administrative procedures which will produce a true avoided cost price. I support and endorse these proposals. This committee's hearings on June 3 and June 5 in 1986 highlighted the need for administrative reforms of PURPA.

PURPA implementation in many states has created false economies for QFs and thereby fostering overgrowth in the cogeneration industry. The PURPA reforms, while worthwhile in their own right, do represent a possible contradiction, by the way, in new generation at a time when projections bring concern of an energy shortage.

The PURPA NOPRs must be implemented to correct inefficient over-production and the IPP NOPR must be implemented to stimulate efficient additional production. It has been nearly a decade since PURPA's enactment. FERC's guidance at this time is really critical.

Now, as a manager of a utility company that is regulated at three levels of government, Federal, State and local, this regulation is predicated on the historical premise that the provision of electric utility service can best be provided by "natural monopolies." Hence, our company, PNM, as an integrated utility is regulated at FERC, at the State public service commission for prices it charges to its wholesale and retail customers based on the cost to PNM shareholders of building generating capacity or of purchasing surplus energy supplies from other utilities.

As generated costs are presented to regulatory agencies for scrutiny and recovery, business management decisions are invariably second-guessed as to the prudence of incurring these costs, particularly in light of changed times. In most cases, the decision to build capacity had previously been approved prior to construction by other individual regulators since—long since in many cases—departed.

The cost of regulation itself adds to the ultimate cost of the commodity being produced. For example, many independent power producers are able to generate electricity at a lower cost than regulated utilities because of higher debt-equity ratios, as Mike just commented, and in addition because of the lack of their obligation to serve future markets.

Independent power producers represent a new supply option for electric utilities. The IPP draft NOPR described yesterday fosters this supply option by lessening the regulation cost component in power generation and by permitting prices which reflect the purchasing utility's cost of adding incremental power.

Many of our largest customers are already seeking to abandon the local utility cost based price service in favor of cheaper power brought directly from QFs, cogenerators or in some instances IPPs. When this occurs, the remaining residential rate payer is left holding the bag for imbedded costs associated with surplus generating capacity. And by the way, Mr. Chairman, I want to thank you for the role you played last session in prohibiting the Federal Government from jumping ship on locally provided service.

Now, we must provide competitively priced power if the goods and services we produce as a nation are to compete favorably in international markets. Customers should be able to benefit from the least expensive power supply. The FERC IPPs proposal allows this to happen through and around the local utility. It is critically important that the local utility be allowed to play a role either as an IPP within and without their area or in some modification, as suggested in the policy papers that Mr. McCollam commented on earlier.

Now, a number of utilities, which favor a proposal to increase competition in electric power generation, formed a utility working group to study issues involving what role should be played by the utilities. This utility working group prepared a paper, and it was presented by Mr. Paul Joskow to FERC. And I would offer for the record a copy of Mr. Joskow's paper which I think spells out in detail the balance of the points that I have made in my comments. And if that would be acceptable, Mr. Chairman, I'll offer that at this time.

I hope it is obvious to all that these NOPRs are devised and designed as a means for utilities—not designed as a means for utilities to raise rates under the guise of deregulation. I believe this is true for two reasons. First, the utility IPPs may receive abbreviated regulatory treatment by FERC for power sale transactions to purchasers outside their service territories. These utilities will be buying at a competitive or lowest price for comparable electric service. Second, these out-of-system sales must be from plants that are not in rate base, so there is no price subsidy from utility rate payers.

Overall the organization of the industry, the opportunity for utilities to offer their service concept and continue to compete as suppliers—yes, as utilities, but also as IPPs—in this competitive marketplace, is a critical option that needs to be maintained by our utilities.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Geist follows:]

STATEMENT OF JERRY D. GEIST,
CHAIRMAN and PRESIDENT
PUBLIC SERVICE COMPANY OF NEW MEXICO
BEFORE THE
SENATE COMMITTEE
ON
ENERGY AND NATURAL RESOURCES
FEBRUARY 2, 1988

Mr. Chairman, members of the Committee, my name is Jerry Geist. I am Chairman and President of Public Service Company of New Mexico (PNM).

Before I begin, I wish to thank the Committee for taking interest in the subject matter of this hearing and for my invitation to appear this morning. It is with particular pride that I am able to address a Congressional Committee which boasts not one, but two distinguished delegates from New Mexico; Senators Pete Domenici and Jeff Bingaman. Mr. Chairman, we New Mexicans will try hard not to use more than our share of the time during this morning's hearing.

Mr. Chairman, Public Service Company of New Mexico is based in Albuquerque and is engaged primarily in generation, transmission, distribution, and sale of electricity, and in the gathering, transmission, distribution, and sale of natural gas in New Mexico. PNM also provides the municipal and industrial water supply to the city of Santa Fe. The company is organized in separate operating divisions with additional activities in the areas of land development, capital investment, and light manufacturing.

PNM serves (through one or more of its utility operating divisions) a population of nearly 1 million. PNM also provides wholesale electric service to a number of other utilities throughout the western United States.

Mr. Chairman, vesterday the Committee heard from Federal Energy Regulatory Commission (FERC) Chairman Martha Hesse and her colleague commissioners, an overview of three Notices of Proposed Rulemaking (NOPRs) which have been submitted to them by FERC staff, which if implemented will offer greater efficiency in the production of energy and hopefully improve the prospects of avoiding a supply shortage in the 1990's. I congratulate Chairman Hesse and the other Commissioners for providing leadership in looking at problems facing the electric utility industry and more importantly, for directing FERC staff to develop proposals which, in my opinion, provide sound, incremental solutions.

You have heard and will yet hear much discussion surrounding the economic theory and legal justifications behind the FERC staff proposals. Rationale involving "economic efficiencies", "zones of economic influence", "significant market power", "just and reasonable rates", and other such important "terms of art" provide for challenging intellectual debate. However, as was so keenly observed by Representative Phil Sharp (D-Ind.) when he chaired House hearings counterpart to these last fall, "we ought not to undertake deregulation or reregulation of an industry as some form of intellectual exercise." Philosophical beliefs in free enterprise and a market based economy must be accompanied bv an understanding that electric power cannot be sold like pork bellies.

This morning I hope to in a practical and pragmatic wav, provide a business management justification for moving in the direction of increased competition in the generation of power.

QF Bidding and Avoid Cost NOPRs

The two NOPRs which have been prepared to address implementation problems of the Public Utility Regulatory

Policies Act of 1978 (PURPA) have attracted near concensus as to their importance and content. Many utilities are conduits for significant consumer subsidies to PURPA Qualifying Facilities (QFs) whose development has been induced by artificial prices set as the avoided cost of the purchasing utility.

By permitting State Public Service Commissions to establish voluntary QF bidding systems to determine true avoided cost, this problem can be corrected. Further, for those states who do not wish to adopt a bidding system for new capacity, FERC staff has prepared a NOPR to assist in developing administrative procedures which will produce a truer avoided cost price. I support and endorse both of these proposals. This Committee's hearings on June 3 and June 5, 1986, highlighted the need for administrative reforms of PURPA.

PURPA implementation in many states has created false economies for QF's, thereby fostering overgrowth in the cogeneration industry. The FERC PURPA NOPRs represent an incremental first step in correcting this false market by introducing mechanisms which will expose and eliminate inefficient energy producers while simultaneously the IPPs NOPR encourages continued growth in response to market forces.

The PURPA reforms, while worthwhile in their own right, do represent a possible contradiction in new generation at a time when projections bring concern of an energy shortage. The PURPA NOPRs must be implemented to correct inefficient overproduction and the IPPs NOPR must be implemented to stimulate efficient additional production. It has been nearly a decade since PURPA's enactment. FERC's guidance at this time is critical.

IPP NOPR

I am manager of a utility company which is regulated at three levels of government (federal, state and local). This regulation is predicated on the historical premise that the provision of electric utility service can best be provided by "natural monopolies." Hence, PNM as an integrated utility is regulated at FERC and the State PSC for prices it charges to its wholesale and retail customers based on the cost to PNM's shareholders of building generating capacity or purchasing surplus energy from other utility suppliers. These costs consist of varied components which are too numerous (and boring) to articulate here.

As generating costs are presented to regulatory agencies for scrutiny and recovery, business management decisions are invariably second-guessed as to the "prudency" of incurring those costs. In most cases, the decision to build capacity had previously been approved prior to construction by a different regulators since departed.

Some in our industry suggest that continuous involvement by regulators in management decisions throughout plant construction, a sort of "rolling prudency review" will avoid the Monday morning quarterback scenario. In my opinion, however, rolling prudency will yield positive results only where there exists a stability in the tenure of regulators. Most state commissioners serve an average of less than two years. Rolling prudency also suggests greater regulation of an industry that is already highly regulated.

In addition, the cost of regulation itself adds to the ultimate costs of the commodity being produced. For example, many independent power producers are able to generate electricity at a lower cost than regulated utilities because of higher debt/equity ratios than those permitted to regulated utilities.

Independent Power Producers represent a new supply option for electric utilities. The IPP draft NOPR described yesterday fosters this supply option by lessening the regulation cost component in power generation and by permitting prices which reflect the purchasing utility's cost of adding incremental power.

Many of out largest customers are already seeking to abandon the local utility cost based priced service in favor of cheaper power bought directly from QFs, cogenerators, or even IPPs. When this occurs, the remaining residential ratepayer is left holding the bag for the imbedded costs associated with this surplus generating capacity. Mr. Chairman, I want to thank you for the role you played last session in prohibiting the Federal government from jumping ship from locally provided service.

We must provide competitively priced power if the goods and services we produce as a nation are to compete favorable in international markets. Customers should be able to benefit from the least expensive power supply. The FERC IPPs proposal allows this to happen through and not around the local utility. Under the proposal, a state may (not must) permit IPPs to participate in the bidding system for utility incremental power needs. This enables the utility to have the greatest number of supply options and to purchase power from the least cost producer for all its customers.

In addition, before FERC approves the rate paid by the utility to the IPPs, the proposal requires the State Commission to certify the result of bidding procedures. By approving the power supply agreement before power is delivered, the utility has obtained a form of "advance prudency" from the regulators. What happens if the cost to produce the power exceed the contract price? The IPP bears the risk, not the utility or the ratepayer. As management, I will feel more comfortable about my decision-making being second-guessed by regulators under the staff proposal than the status quo.

The Role of Utilities

A number of utilities[1] which favor the proposal to permit increased competition in electric power generation, formed a Utility Working Group (UWG) to study issues involving what role should be played by utilities.

The UWG retained the National Economic Research Associates, Inc. and Dr. Paul Joskow, Professor of Economics, Massachusetts Institute of Technology, to prepare written comments on the FERC IPPs proposal. After significant effort, the UWG group developed recommendations as to utility involvement in bidding systems and as utility/IPPs. Although the full list of recommendations were not supported by all UWG members, we all agree utilities must continue to be the primary suppliers of electric power, whether within their own service territory or as suppliers to purchasers in other areas. Many of the recommendations adopted by UWG are also included in the recently adopted EEI policy position on IPPs which is being presented in testimony be EEI President Bill McCollum. From what I understand of the draft NOPR on IPPs, almost all of these recommendations have been assimilated into the NOPR. Utilities will be the allstars in the generation game if they are allowed to compete with other supply sources on an equal footing.

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[1] Arizona Public Service Company, Baltimore Gas & Electric Company, Boston Edison Company, Consumers Power Company, Duke Power Company, General Public Utilities Service Corporation, Middle South Utilities, New England Electric System, Pacific Gas & Electric Company, Public Service Company of New Mexico, San Diego Gas & Electric Company, Sierra Pacific Power Company and Virginia Power.

While many utilities see the IPP proposal solely as a means to add a supply option which may benefit their ratepayers, IPPs may also provide financing partners enabling utilities to spread the financial risk.

PNM and other UWG members view the proposal as a means to solve surplus capacity problems. Several utilities have power plants (mostly nuclear) which have not been allowed into rate base by state regulators. The FERC proposal provides management of these utilities the chance to turn this surplus capacity into surplus opportunity through power sales outside their service territories at the purchasing utility's cost.

By providing flexible regulatory treatment to sales from generating facilities that fall in this category, FERC can help insure that this surplus capacity is utilized as efficiently as possible.

Mr. Chairman, I hope it is obvious to all that these NOPR's are not devised to be a means for utilities to raise rates under the guise of "deregulation." This is true for two reasons. First, utility/IPPs may receive abbreviated regulatory treatment of FERC for power sale transactions to purchasers outside their service territies. Second, these out of system sales must be from plants that are not in ratebase.

It is critically important to note here however, that nothing in this proposal should remove the obligation of states to provide rate based recovery for plants constructed under cost of service regulation. It would be patently unfair for a State commission to require utilities to bid output of plants that were planned, certified and built under cost of service regulation.

The Public Utility Holding Company Act of 1935

The Public Utility Holding Company Act (PUHCA) represents a significant barrier to some utilities who may seek to compete as utility/IPPs. Most registered holding companies may not be able to participate in IPPs projects which sell power outside their own service territory. Since the FERC proposal offers IPPs treatment to power sales to customers outside one's service territory, many excellent power plant builders will be benched.

In addition, exempt holding companies would not participate in IPPs if their exemption would be jeopardized. Exemptions themselves are granted after a company agrees to limit its non-utility business activities and/or business territory. Non-utility partners will be reluctant to participate in IPPs unless they can be assured of an exemption.

The process of obtaining SEC approval for an exemption or a no action letter clearing participation in a project is lengthy and costly. As I am sure you will hear later from other witnesses, obtain SEC approval for a multiparty project with utility participation can cost over a million dollars and take up to two years.

The FERC draft NOPR on IPPs does not propose any change in PUHCA regulation. Indeed, many non-holding company utilities may become utility/IPPs without any PUHCA constraints. FERC should proceed with its NOPRs without delay. A half a loaf is better than no loaf at all. Congress should address PUHCA, however, in the context of removing barriers to full participation in generation competition. Only minor amendments to PUHCA need be enacted to levelize the field for all potential players.

Congress has in the past adopted a piecemeal approach providing PUHCA exemptions for qualified electric cogenerators and small power producers of 30 megawatts or less, solar generators of 90 megawatts or less, gas cogenerators, and individual companies and projects. Congress should establish new PUHCA guidelines which compliment the FERC proposal to lessen regulation of IPPs projects and transactions. This should be accomplished with the full participation of the registered and exempt holding companies. I would be happy to discuss with the Committee possible PUHCA amendments, if you so desire.

Transmission

You will hear today from some witnesses who maintain that the FERC proposals cannot be efficiently implemented without some form of forced transmission access. I disagree. FERC has very limited authority under sections 211 and 212 of PURPA to order wheeling services. This authority clearly does not contemplate the mandatory access advocated by some.

Quoting from a paper recently prepared by EEI's Technical Task Force on Transmission entitled "Pricing of Transmission Services in Bulk Power Markets: Factors for Consideration", "In Response to the FERC competitive bidding proposals, several organizations and individuals have argued that regulators must provide competing suppliers with mandatory access to utilities' transmission systems,...However, mandatory supplier access or wheeling, particularly if the price signals aren't first set correctly, may be counter productive to the very goals of introducing competition in generation markets; it could have the effect of reducing efficiency in bulk power markets and, it could increase--not decrease--costly government regulation."

Consistent with the economic principles underpinning the FERC draft NOPR on IPPs, market-based pricing of transmission services will produce the greatest efficiencies in the wheeling of power between suppliers and purchasers. FERC itself has permitted two experiments in allowing market pricing of transmission services, e.g., the Southwest and Western Systems Power Pools. These experiments, of which PNM is a participant, will demonstrate that the means to achieve increased transmission access is through a voluntary system which abandons imbedded cost pricing of wheeling services in favor of market produced efficiencies. I applaud FERC Chairman Hesse's plan to follow these immediate NOPRs with rulemakings in the areas of transmission pricing and bulk power transactions.

Substantial work has already been done in this area beginning with the 1985 FERC Notice of Inquiry Regarding Regulation of Electricity for Resale and Transmission Service. (Docket No. AM85-17-000-Phase I). I would also commend to the Committee a paper by the National Regulatory Research Institute entitled, "Some Economic Principles for Pricing Wheeled Power."

Power Pooling

Some have argued that the IPPs proposal will adversely affect power pool arrangements between newly competitive utilities. Dr. Verdon L. Smith, Professor of Economics and Director of the Economic Science Laboratory, University of Arizona, in a recently published paper entitled, "Currents of Competition in Electricity Markets" rebutted this assertion as follows:

> "Through power pools, utilities provide each other with on-line generating reserves and back-up reserves to make blackouts both rare and brief. If power generation were deregulated, these bilateral and multilateral arrangements for emergency assistance and power pooling would continue to exist and, perhaps with further development, could provide whatever level of reliability customers demanded."

Conclusion

Concerning the proposals which are today in draft NOPR form, the FERC has engaged in an unusually thorough evaluation, discussion and review of the issues associated with the proposal. Beginning with the 1985 NOI already referred to dealing with sales for resale, there have been calls for increased competition in generation. In addition, FERC commissioners and staff have: held four regional PURPA hearings; hosted an IPPs Technical Conference and received written papers on IPPs; published FERC papers on PURPA reforms and IPPs; appeared before Senate and House Committees; and held numerous briefing/discussion sessions with interested and affected groups. I do not recall another electric issue which has received so much analysis. With these hearings the record is sufficient, in my opinion, for FERC to proceed to publish in the Federal Register the NOPR drafts for official public review and comment. I urge them to do so.

I believe the FERC proposals offer utilities an opportunity to demonstrate, free of unnecessary regulation, how efficiently and effectively they can do the job of satisfying this country's energy needs. Quoting again from Professor Smith: "Regulation has been applied far too broadly to the electric power industry. As a result, policies intended to restrain monopoly power have instead propagated that power."

Mr. Chairman, the FERC proposals will hopefully reverse this trend. Thank you very much.

The CHAIRMAN. Thank you very much, Mr. Geist.

Next we have Richard E. Disbrow, president of American Electric Power Company, Inc. out of Columbus, OH.

STATEMENT OF RICHARD E. DISBROW, PRESIDENT, AMERICAN ELECTRIC POWER COMPANY, INC.

Mr. DISBROW. Thank you, Mr. Chairman. I am President of American Electric Power Company, Inc. as well. And I am appearing today on behalf of the eight operating electric utilities of the AEP system which serve portions of seven Midwest States. I would like to take this opportunity to thank the committee for holding these hearings and affording me a chance to comment on the FERC proposal. The program under consideration by FERC is obviously of great concern to us.

Clearly there have been dramatic changes in the economic circumstances of the investor-owned electric utility industry over the past 15 years. A number of events outside the control of the industry have resulted in significant increases in the price of electricity. And beyond that, significant rate disparities have developed among utilities for a variety of reasons.

Now, in response, retail rate regulators have acted to shield consumers from what utilities viewed as cost-justified rate increases. They have done this by departing from historical rate-making procedures. Most notable have been after-the-fact prudency reviews which have forced major write-offs of investment for some companies and huge losses to investors. And the specter of potential after-the-fact prudency review disallowances is now discouraging many others from committing to construct new generating resources for the future.

What is truly needed to address the problem is regulatory reform, not dangerous experimentation with restructuring of the industry. And regardless of the outcome of the FERC initiative, the utilities will face the same risks, if they commit to 20 to 30 year contracts with so-called independent power producers, or IPPs, as they would in undertaking construction programs of their own in the absence of such regulatory reform.

Now, turning specifically to the pending FERC proposal for all-source competitive bidding, I see no evidence of the need for such a Federal initiative and much danger in its implications for the future. There was no prohibition today and none that I know of today that precludes IPPs from entering the supply mix where they make economic and operational sense. Indeed, they have a presence in many states already and more will undoubtedly occur. They may well serve as an adjunct to utility supply programs, but they should not be viewed as a full substitute.

Basically, electric utilities continue to have the obligation to serve and should have a continuing opportunity to determine the nature and composition of generating sources subject, of course, to existing State regulatory oversight. The FERC proposal would change this drastically.

All-source competitive bidding stems from FERC's reevaluation of the excesses which developed in the implementation of PURPA. There is a definite need for PURPA reform, and competitive bidding may be an appropriate answer. But to use this as a springboard to marry competitive bidding and IPPs is a definite move toward fundamental restructuring of the industry.

FERC acknowledges that if competitive bidding is adopted, price should not be the single determinant and that non-price factors, such as reliability and dispatchability, et cetera, must be considered. Yet, where state bidding experiments have occurred, price has been given a 50 to 80 percent weighting. Moreover, non-price factors are difficult to quantify and understand both by regulators and the public alike. I submit, therefore, that price ultimately will be controlling in the selection process and lead to bad decisions and cost effects.

How can the IPPs provide lower prices? They will generally employ the same architect-engineers and general contractors and purchase equipment from the same vendors as we utilities do. There is no advantage there. The advantage may come from financing flexibility or cutting corners or offering less capital intensive technology at the possible expense of overall life cycle costs and reliability.

Utilities are required to employ conservative capital structures and must establish revenue requirements or price on a declining rate base accounting-regulatory model. IPPs are not so encumbered. They can levelize their capital cost, use high debt leverage, and pyramid companies to gain further leveraged advantages. Of course, the credit of the underlying utility purchaser secures the leveraged debt.

Now, it was financing schemes such as these, among other things, that led to the collapse of the holding company empires in the 1920s and 1930s which, in turn, led to the passage of the Public Utility Holding Company Act of 1935. Ironically, the IPPs seek total exemption from that 1935 act. Is it desirable public policy to return to these financing schemes? If the answer is yes, then why not level the playing field by giving the utilities that same degree of flexibility?

Reliability of future energy supply should be a serious consideration in evaluating the role of IPPs since a reliable electric supply is absolutely essential to our way of life. Proponents suggest that all reliability elements can be accommodated through contract provision, but we must recognize that IPPs have a different operating agenda, objectives and responsibilities which contractual provisions will not change. Contract provisions are subject to interpretation and, in the extreme, litigation. But litigation does not keep the lights burning. I am deeply concerned that if the FERC is carried to its logical extreme, reliability of service will ultimately become a critical problem and will emerge as the most serious cost consideration of all.

Time does not permit further exploration of the issues of risk and reliability, but they are critical and, indeed, paramount issues. They are more fully covered in the testimony I have submitted.

In closing, let me reiterate that the FERC proposal will not solve the industry's problem, but exacerbate it. The need is for regulatory reform that assures greater fairness and confidence in regulation. IPPs may well have a future as important components of utility sponsored plans. However, structuring competitive bidding so that it makes IPP the wave of the future is ill-advised and dangerous in my opinion. But if that course becomes inevitable, equity and common sense requires that electric utilities be permitted to compete on an equal footing. Otherwise, this Nation will be deprived of the expertise that has given us the finest electric supply system in the world.

Thank you. And I'd be happy to answer any questions you may have.

The CHAIRMAN. Thank you very much, Mr. Disbrow.

And finally, we have Mr. Bill Ellis who is chairman of Northeast Utilities.

STATEMENT OF WILLIAM B. ELLIS, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, NORTHEAST UTILITIES

Mr. ELLIS. Good morning, Senator, and thank you very much for this opportunity to appear before you.

Northeast Utilities, whose operating companies serve the majority of the electrical needs of Connecticut and western Massachusetts, has long encouraged the timely development of economic and efficient private power production and has negotiated State approved contracts with private power producers that are projected to satisfy Northeast Utilities' load growth well into the next decade and will represent about 15 percent of the company's installed generating capacity. In fact, in 1987 Northeast Utilities was named "utility of the year" by the Cogeneration Institute of the Association of Energy Engineers.

However, the company has seen first hand the result of artificial stimulation of the qualifying facility industry and the divergence between PURPA's intent and implementation at the State level. Cogeneration and small power production is no longer a cottage industry. Because of the front loading of payments and the must-take nature of Northeast Utilities' contracts with PURPA QFs, by the year 2000 NU's customers will have paid about $1 billion more for electricity than they would have absent private power production. This has a direct and dramatic effect on the company's ability to remain a competitive source of electricity at both the wholesale and retail levels.

Recognizing that there must be a better way to obtain the benefits of private power production, Northeast Utilities, with the encouragement of State regulators, was a pioneer in the development of the Massachusetts competitive bidding system and the Connecticut ranking and selection process.

It is our understanding that the FERC initiatives are intended to insure that the Nation's bulk power supply system operates in an economically efficient manner with all potential suppliers being afforded the opportunity to participate. Northeast Utilities wholeheartedly endorses these objectives. However, the company does have several reservations about the manner in which these initiatives might be implemented.

It has been said that the FERC initiatives will introduce competition into the electric utility industry. Let me assure you that competition is already present in this industry. Utilities are less and less the monopolies they have been in the past. At the wholesale level there are many potential competing suppliers of electric power, and at the retail level self-generation is becoming an increasing viable alternative to utility-supplied power. In fact, the upward pressures on Northeast Utilities' rates caused by front-loaded QF contracts only serves to make self-generation more attractive. Northeast Utilities believes that competition can generally increase the welfare of society as a whole. However, some of the inefficiencies created by regulation may best be dealt with by repairing the regulatory framework rather than building a wholly different structure.

While Northeast Utilities generally supports the FERC proposals, unless the Commission carefully considers the implementation of its policy initiatives, three tiers of rules will emerge: one for independent power producers, one for qualifying facilities, and one for utilities. And such a hybrid system cannot be relied upon to provide consumers with a least-cost reliable supply of electric power.

Already there exists a special class of power suppliers, those facilities that qualify under PURPA, the so-called QFs. Special considerations accorded QFs, such as mandatory utility purchase requirements at administratively set rates, can only distort the marketplace. Because there's a finite need for capacity on a utility system and a limitation on that system's ability to accept additional capacity, purchases from one group of suppliers can preclude the utility from taking advantage of more attractive offers from other sources. Administratively determined prices cannot be expected to mimic those achievable in a competitive environment.

PURPA has stimulated the market for alternative supplies of electric power. Because that market is now thriving, we can remove some of the artificiality of PURPA-based regulation. FERC's initiative to conform its QF regulations to today's realities must address the issue of mandatory purchase and replace avoided cost with market driven pricing. Institution of competitive bidding, which I'll describe in a couple of minutes, is one way of accomplishing this.

FERC has defined IPPs as "producers other than QFs that are unaffiliated with franchised utilities in the IPPs market area and that for other reasons lack significant market power." In other words, FERC seems to be saying that an IPP does not control access to a marketplace and thus can't abuse its position to unduly influence price. I can understand that concern, but I would like to point out that the concern need not rule out utilities themselves from competing as IPPs. In my judgment with proper regulatory oversight in a workably competitive environment, a utility cannot abuse any so-called monopoly status it might have and its theoretical market access power poses no practical economic or unduly influential threat to consumers. Therefore, if a utility obtained new capacity through an approved competitive bidding process, there is no reason why an affiliate of the utility or the utility itself should not be allowed equal consideration.

Competitive bidding is a means to achieving a workably competitive environment in which all participants operate under a common set of rules. As already formulated in Massachusetts and Connecticut, subject to regulatory oversight, a utility will solicit by sealed bid a fixed amount of capacity to meet its projected increase in demand. The solicitation would include the criteria by which the bids are evaluated and contracts awarded. Such a system introduces the element of competition while at the same time providing an orderly, systematic and equitable way of selecting and integrating the best projects regardless of ownership, and integrating those projects into the utility's resource portfolio with minimal risk of damaging the reliability of the electric system.

Properly structured and monitored by regulators, such a system will effectively eliminate potential abuses of market power. By taking advantage of competitive forces, customers will benefit from market-driven prices.

There is one issue that cannot be resolved by FERC's regulatory reform but requires congressional action, and that is the restrictions created by the Public Utility Holding Company Act of 1935. Under FERC's market power definition, a traditional utility would be permitted to be an IPP outside its zone of economic influence, but not within its franchised service territory. However, as a regulated holding company under the Holding Company Act, the investments and activities of Northeast Utilities, other than through qualifying cogeneration, are limited to a single integrated system. Thus, the combination of FERC's IPP test on the one hand and the Holding Company Act on the other could effectively preclude Northeast Utilities and other systems subject to that act from competitively participating in the generation marketplace. And what a loss that would be.

The Northeast Utilities system companies have been providing electric service for almost 100 years. It doesn't make sense to exclude this knowledge and experience from making a contribution to the Nation's electric supply future. Congress' rationale for exempting QFs from the Holding Company Act is equally applicable to the case of IPPs, and it is absolutely essential to the success of a more competitive marketplace that the act be modified to provide a similar such exemption for IPPs.

That concludes my prepared remarks. Thank you for your attention.

[The prepared statement of Mr. Ellis follows:]

UNITED STATES OF AMERICA
100TH CONGRESS
SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES

HEARINGS ON: FERC PURPA REFORMS;
COMPETITIVE BIDDING SYSTEMS, AND
INDEPENDENT POWER PRODUCERS

WRITTEN TESTIMONY OF WILLIAM B. ELLIS
ON BEHALF OF
THE NORTHEAST UTILITIES OPERATING COMPANIES:
THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY

WASHINGTON, D.C.
FEBRUARY 2, 1988

1) INTRODUCTION

Good morning. My name is William B. Ellis, I am Chairman and Chief Executive Officer of Northeast Utilities. My comments today are made on behalf of the Northeast Utilities Operating Companies; The Connecticut Light and Power Company, Western Massachusetts Electric Company and Holyoke Water Power Company. These utility companies serve the majority of the electrical needs of Connecticut and Western Massachusetts.

We appreciate the opportunity to address the Senate Energy Committee on the proposed changes contemplated by the Federal Energy Regulatory Commission (FERC) to its regulations implementing the Public Utilities Regulatory Policy Act of 1978 (PURPA) and the other energy initiatives that have been put forth by FERC's Chairman, Martha Hesse. These changes have far-reaching affects and implications on the nation's future energy supply. We urge in your consideration of such changes that the

Senate Energy Committee be mindful of the fact that government regulation of private enterprise was not established solely on the basis of economic considerations. Fulfillment of an essential public need was a key component of the regulatory compact.

At the onset, let me say that Northeast Utilities fully supports the conservation and efficiency ethics embodied in PURPA and Qualifying Facilities (QFs) principles.

These written comments were prepared to address more comprehensively and elaborate more fully on my oral testimony. They were created in the spirit of cooperation and to point out, from one utility's perspective, the subtle but important consequences that have been revealed as we have implemented Congress' will under PURPA.

We understand that specific FERC regulatory reform proposals will be issued in three separate "Notices of Proposed Rulemaking" ("NOPR") either in late February or early March, 1988. These FERC's regulatory reform proposals will:

1) propose PURPA reform initiatives,

2) allow states to incorporate competitive bidding, or ranking and selection systems into the process by which regulators, utilities and ratepayers can best take advantage of the emerging competitive environment fostered by non-utility electric generation, and

3) encourage participation by Independent Power Producers (IPPs) in the marketplace.

Undoubtedly, the FERC's proposals will be well intentioned and, if they have the correct set of objectives and are successful, they will lay the ground work for necessary and important PURPA reforms to achieve least-cost energy supply.

My purpose is to encourage the Senate Energy Committee to support these regulatory reforms proposed by FERC, with a few, but important, exceptions.

2) SUMMARY

NU is particularly qualified to encourage the support of FERC's regulatory reforms, because it has had extensive and diverse experience with the integration of QFs and IPPs into its electric system, both in Connecticut and Massachusetts. It is Northeast Utilities policy to encourage the timely development of economic and efficient cogeneration and small power production. However, there are subtle and often overlooked detrimental consequences that can result if FERC's regulations are not carefully crafted.

As NU set out to obtain the obvious and potentially large benefits for ratepayers and to work out what is required to stimulate private power production, we discovered that QF development could become counter-productive for electric utility ratepayers and project developers. Great care must be taken in controlling the timing, nature, and amount of QF capacity, and in fashioning power purchase agreements that are fair to all interests.

Because administratively set rates for utility purchases from QFs are highly front-end-loaded, the impact to ratepayers can be significant. For example, on the NU system, we are committed to purchase 600 MW of QF capacity under regulator approved contracts. The cumulative effect of the front-end loading feature of these contracts is to increase electric rates through the year 2000 by about $1 billion more than they would have been absent the QFs. Moreover, when judging QFs or IPPs, we must remember that we are not only making an investment in return for future prospective savings, we are also assigning the responsibility for a portion of the electric energy supply system to a diverse set of entrepreneurial ventures. These businesses are naturally motivated by a laudable business goal -- profit -- but are not necessarily instilled with the corporate responsibility, or the utility's charter obligations, of providing electric energy to consumers under all circumstances. Therefore, if economic or technical conditions cause QFs to fail to perform, the consequences could be serious and, undoubtedly, utilities would be looked upon as the "supplier of last resort" to remedy the situation.

The Competitive Bidding process has been developed by NU in response to the overabundance of QF capacity being made available. The bidding process acknowledges that QFs and IPPs are the cutting edge of a new form of competition within the regulated electric utility industry.

As indicated by Commissioner Keegan of the Massachusetts Department of Public Utilities (MDPU), the competitive bidding process is now codified into regulations in Massachusetts. A similar process has been formalized by the Connecticut Department of Public Utilities Control (DPUC). Both of these regulatory agencies have the same objective with respect to the utilities they regulate, and both have recognized that the competitive bidding process is the most attractive way to allow market forces to integrate non-utility generation into the utility industry in a least-cost and businesslike manner.

We at NU have also concluded that the competitive bidding process offers the best opportunity to foster, yet bring control to, the timely development and integration of QFs and IPPs into the electric supply system. It accomplishes this objective by providing the marketplace with the information and confidence necessary to allow the "best-of-the-best" projects to go forward. We believe the process is orderly, simple, and equitable, and able to adjust rapidly to changes over time. Because of the use of market forces, the outcome of this process is likely to be superior to all other approaches, ensuring maximum benefits to all parties -- to QFs, IPPs, utilities and ratepayers.

In NU's opinion, the key to maximization of the timely development of an economic and efficient bulk power supply system lies in one of FERC's PURPA reform initiatives which decouples payments to QFs from avoided costs, as they are currently determined, and in effect replaces avoided costs with market-determined prices.

Another issue that needs resolution is not with stimulating economic non-utility sources of supply, but with the mandatory requirement that utilities must purchase QF power at administratively set rates, that are unrelated either to QF costs or to market prices. Special considerations granted one set of participants, the QF, can only distort the marketplace and result in a sub-optimal allocation of society's resources.

It follows, therefore, that when FERC considers its definition of IPPs it must be careful to avoid creating three tiers of rules -- one for IPPs, one for QFs, and one for utilities. FERC has defined IPPs as "producers other than QFs that are unaffiliated with franchised utilities in the IPPs market area and that for other reasons lack significant market power." In other words, an IPP does not control access to a marketplace and cannot abuse its position to unduly influence price. We believe that if an entity operates in a "workably competitive environment," it lacks meaningful market power. Thus, the identity of a producer is less important than the environment in which it operates. With proper regulatory oversight, in a workably competitive environment, a utility cannot abuse any monopoly status it might have and its theoretical market power poses no practical economic or unduly influential threat to consumers. Therefore, if a utility obtained new capacity through an approved competitive bidding process, there is no reason why an affiliate of the utility, or the utility itself, should not be allowed equal consideration.

Many of the benefits that might be achieved from a "low-profile" regulatory posture toward IPPs, can also be achieved by relaxing aspects of the regulation of traditional utilities and updating the FERC's PURPA regulations with respect to mandatory purchases from QFs. The Commission must examine the results obtained from "encouragement" of QFs in order not to repeat the same problems with IPPs. Problems arose in many jurisdictions from the almost unrestrained implementation by state regulators of the FERC PURPA regulations.

Neither perfected regulation nor the introduction of competition offers the perfect solution to the provision of services affected with the public interest. The benefits of both systems must be weighed against their respective shortcomings. However, some of the inefficiencies created by regulation may best be dealt with by repairing the regulatory framework rather than by building a different structure.

The nation's electric consumers are best served by the orderly and controlled expansion of supply sources to meet future demands. The past has shown that any policies must be flexible in order to respond in a timely manner to unpredictable changes in the environment in which the industry operates.

If competition is to be best served, all parties must be allowed to compete on equal footing -- the utility, the QF and the IPP.

In addition, there is an issue that cannot be resolved by FERC's regulatory reform, but requires congressional action. That is, the restrictions created by the Public Utility Holding Company Act of 1935. Under FERC's "market power" definition, a traditional utility would be permitted to be an IPP outside its "zone of economic influence," but not within its franchised service territory. However, as a regulated holding company under the Holding Company Act, the investments and activities of NU (other than through qualifying cogeneration) are limited to a single integrated system. Thus, the combination of FERC's IPP test, and the Holding Company Act could effectively preclude NU, and other utilities subject to the Act, from competitively participating in the generation marketplace. The NU system companies have been providing electric service for almost 100 years. It doesn't make sense to exclude this experience or resource from making a contribution to the nation's electric supply future. Congress' rationale for exempting QFs from the Holding Company Act should apply equally to the case of IPPs whether privately or utility owned.

Many independent producers have linked competitive bidding with open access to the transmission system and have equated access to the transmission system with access to natural gas pipelines. However, the purpose, design and operation of the two transportation systems are vastly different. These differences must be recognized in formulating any policies with respect to access to the electric transmission system.

On a voluntary basis, NU regularly negotiates wheeling arrangements with other utilities and independent producers. I emphasize "voluntary" because, in arriving at the terms of these arrangements, we are mindful of the fact that the primary purpose of the utilities' transmission system is to provide reliable power to its customers. The NU transmission system is a finite resource that cannot be expanded easily, cheaply, or without environmental consequences. Already we are expecting limitations on some of our transmission lines caused by QF capacity.

Mandatory access could eliminate NU's ability to operate its system in a reliable, cost-effective manner. It could deprive our customers of its low-cost, existing company-owned generation, should it be necessary to backdown these units to accommodate mandatory, must-take power flows.

While we are prepared to endorse the spirit and intent of the FERC proposed changes, as we understand them today, we urge caution and careful consideration of all aspects of the introduction of direct competition in the electric utility industry. Traveling an uncharted course is always fraught with risks. I expect some of my fellow panel members here today, will elaborate more fully on those risks and possible consequences.

NU recommends that the Senate Energy Committee monitor FERC's progress, and with the exception of modifications to the Public Utility Holding Company Act, NU does not believe that it requires intervention by Congress at this time. Let FERC do its job. We are confident that the final FERC initiatives, after careful consideration of all issues, will mitigate most concerns raised herein, and be a positive step forward to a national electric system that is reliable, energy secure, and economic.

3) BACKGROUND

The following background information should provide the Senate Energy Committee with the perspective for NU's support, with a few exceptions, of the FERC'S regulatory initiatives. NU is particularly qualified to offer such comments because it has had extensive, and diverse experience, with the integration of QFs and IPPs into its electric system. The NU Companies' collective experience involves open-market, pre-PURPA contracting; QF standard offers; and two sets of state-implemented competitive bidding regulations. The results of such activities over the past several years are evidenced by the states' regulatory approval of NU's long-term contracts with QFs for about 600 MW, or 15 percent of our peak load.

During the 1960's and 1970's, with federal and state government encouragement, NU embarked on a construction program designed to lessen the Companies' dependence on imported oil and to provide a long-term, reliable, energy secure, and least-cost electric supply.

The NU system constructed roughly 3,000 MW of nuclear capacity and converted 150 MW of oil capacity to coal. All of this completed construction is presently serving NU's customers in Connecticut and Western Massachusetts, and through the regional coordination of NEPOOL, the entire New England area. In 1987, NU's customers electric energy requirements were supplied by 68% nuclear, 7% coal, 3% hydro, 3% gas and 20% oil.

Spurred by federal PURPA legislation in 1978 and a 1983 "mini PURPA" passed by the Connecticut General Assembly, potential private power producers, seeking QF contracts, began aggressively approaching NU. By early 1985, the Companies had interconnected with 62 projects under posted tariffs for the purchase of "as-available" power and had signed two long-term contracts for about 80 MW with refuse-to-energy projects.

Another 540 MW of QF developers were in the process of negotiating contracts with CL&P, NU's operating company in Connecticut, when The Connecticut Department of Public Utility Control ("CDPUC") issued its first generic QF decision in December 1985. That landmark decision was designed to stimulate the development of QFs in a California-style "first come-first serve" method, with standard rates and contract terms. The decision established liberal pricing allowances including significant front-end loading of payments to QFs. The issuance of that decision coincided with the collapse of prices in the world oil markets and the availability of large quantities of natural gas at reduced and, therefore, highly competitive prices. During the following three months, NU, whose system peak load was about 4,000 MW, was overwhelmed with demands by QF developers to purchase more than 2200 MW. By April 1986, when the CDPUC opened its second QF docket, 39 projects representing 860 MW, had filed QF contracts for CDPUC approval.

Recognizing that economic conditions had caused a drop in NU's avoided costs of about 30 percent, in July 1986 the CDPUC invited all QF projects to refile their proposed contracts to reflect the reduced avoided costs. They also indicated that, on a case-by-case basis, each project would be evaluated on both price and non-price factors designed to bring order and control to the QF contracting process. The CDPUC further clarified that only 450 MW would be chosen to fill the "first block" of capacity from QFs.

For almost a year, from the Fall of 1986 through the Summer of 1987, the CDPUC held individual hearings on 22 projects and issued decisions approving 464 MW of QF capacity for sale to NU. The CDPUC also rejected four projects amounting to 190 MW. The balance of the 39 original projects withdrew their petitions. To resolve critical issues and accomplish this result, the CDPUC heard over 100 days of testimony, required 3,000 interrogatories and received 600 late filed exhibits. Significantly, all projects, except for small hydroelectric facilities, ultimately requested contracts at less than NU's reduced avoided costs. Connecticut discovered the power of the marketplace!

Meanwhile, the Massachusetts DPU was implementing competitive bidding regulations. On October 1, 1986, through its Massachusetts operating company, NU filed a competitive bid solicitation and Request For Proposals (RFP) with the DPU. NU's submission established for the first time the principals and methodology for what has now become known as the Competitive Bidding system. To date, Massachusetts experience in competitive bidding is limited to a completed Boston Edison bid solicitation. But, that single experience reveals the power of the competitive bidding system as a tool to harness market power. Boston Edison offered to buy 200 MW. About 2,000 MW of QF projects responded to that offer. More significant is that the award group winners requested payments resulting in only about 80 percent of Boston Edison's avoided cost.

Recognizing that there must be a "better way" to capture the benefits of private power, Connecticut is also putting into place regulations using competitive bidding principals, which they call the Ranking and Selection Process. This process will replace the arduous process of individually sorting out the many proposals that can be expected to be proffered in tomorrow's energy marketplace.

4) FERC'S PURPA REFORM INITIATIVES

The problem with current PURPA regulations, as the previous background discussion shows, is the conflict between the objectives of:

1) PURPA's mandate to purchase QFs at administratively set prices, and

2) the introduction of economic efficiency, control, and order to the process.

While stimulation of a nascent QF industry might have been required in 1978, the market today is vastly different and market forces need to be used to effect economic efficiency. It is now time to replace PURPA's previously helpful artificial stimulation with today's reality of the marketplace, for the benefit of ratepayers. To accomplish these objectives there are two major PURPA regulations that must be changed:

a) PURPA'S Avoided Cost Doctrine does not Produce Economic Efficiency and Should be Replaced with Market-Determined Rates

The fundamental flaw in PURPA regulation is that is does not use marketplace competition to set the rates QFs should be paid. As a consequence, utilities have been required to enter into high front-end loaded contracts resulting in significant impact on ratepayers and fostering the threat of self-generation.

i) PURPA's Fundamental Flaw

The first issue requiring PURPA reform is the resolution of whether ratepayers or non-utility generation should get the surplus value (economic rent) from their production. This clarification is absolutely essential if economic efficiency is to occur.

It is important to understand the fundamental flaw in current PURPA regulations that impedes the entry of competition and achievement of economic efficiency. PURPA's regulations consider only those rates utilities ought to be willing to pay for QF power, and ignores the rates that QFs might be actually willing to receive for producing that power. This imbalance between supply and demand can be best illustrated with a simple supply - demand diagram, as shown in Exhibit 1.

- The demand curve for QF power under PURPA is the utility's incremental avoided cost curve. Because initial amounts of QF power have the most capacity value -- they displace the earliest utility units and are awarded the highest avoided energy cost. Increasing amounts of QF capacity have lesser value, the demand curve therefore slopes downward.

- The supply curve for QF power is the amount that the private sector would supply to the utility at various prices. It should slope upward, reflecting

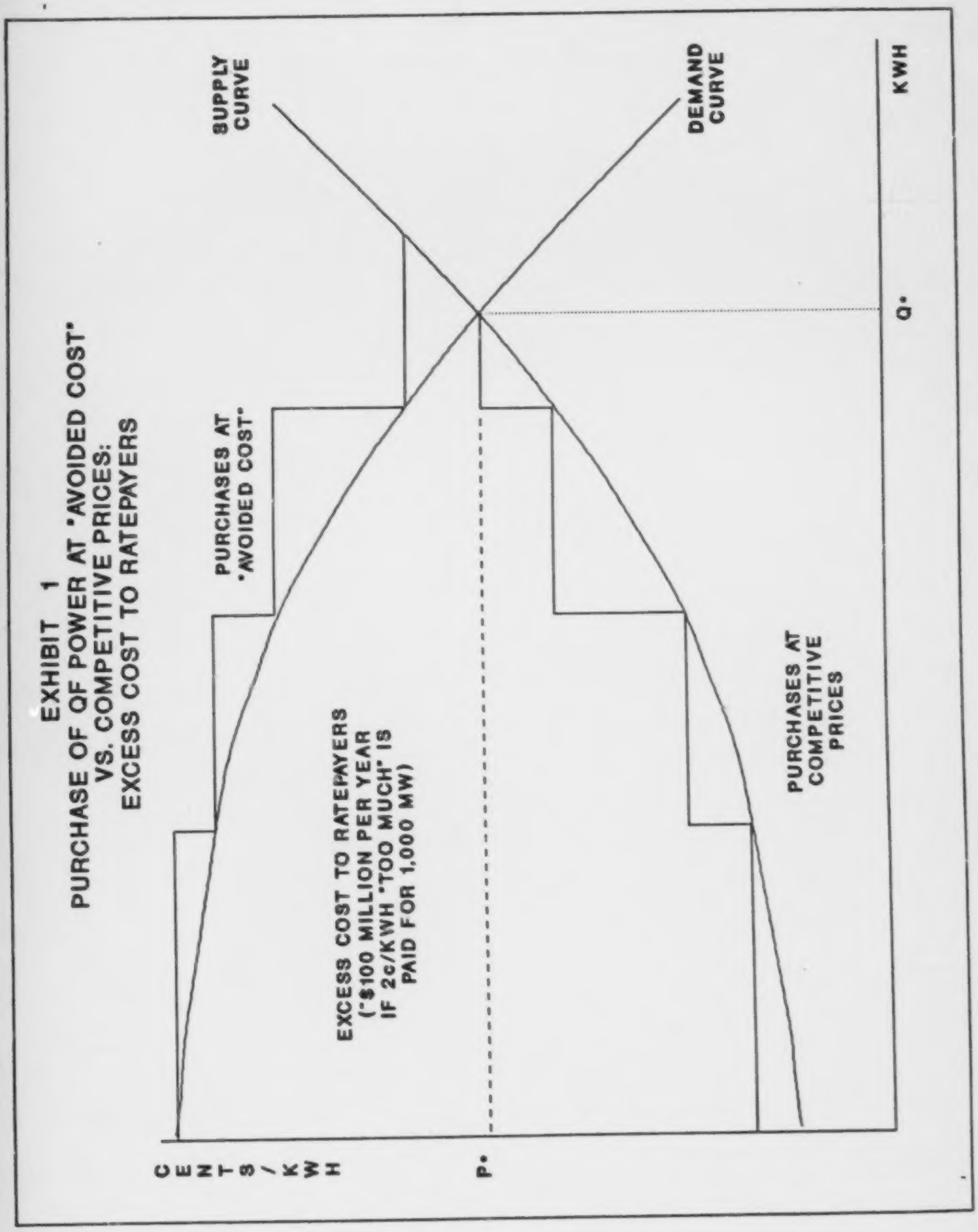


EXHIBIT 1
PURCHASE OF QF POWER AT "AVOIDED COST"
VS. COMPETITIVE PRICES:
EXCESS COST TO RATEPAYERS

> the fact that the most economic QFs will be developed first. However, because the most economical types of cogeneration projects can be replicated many times over, without significantly increasing costs, the supply curve is expected to be relatively flat.

PURPA regulations only address the demand-side of this supply and demand equation. Most states have required that utilities contract for QF power at prices which move down the avoided cost (or demand) curve. This practice gives the QF developer all of the surplus value or economic rent.

The more progressive states have, or are instituting, a form of competitive bidding or ranking and selection processes, under which the developers who are willing to supply a quality project at the lowest prices are awarded contracts. This practice moves up the QF developers supply curve and allows the surplus value to benefit ratepayers. This bidding system is:

1) consistent with PURPA, if the maximum price offered by the QF is the utility's avoided cost;
2) consistent with the Commission's philosophy of encouraging QF development because it encourages well-conceived project proposals; and
3) economically efficient.

Specific methods for determining rates based on 100 percent of utilities' avoided costs were left to the individual state regulatory commissions. Without a doubt you will hear a national concern about the methodology for establishing avoided costs by individual states for the utilities under their jurisdiction. The preamble to FERC's regulations has been interpreted by some states to require utilities to purchase privately produced power at rates exceeding PURPA's 100 percent of avoided cost limit. At the same time this privately produced power has been allowed the must-take/must-pay privilege granted to QFs under PURPA. For example, a Connecticut statute requires utilities to purchase energy from refuse-to-energy projects at up to twice the utility's avoided cost.

As the success of the bidding process has shown, mandatory purchases at 100 percent (or greater) than the utilities avoided costs are unnecessary and economically inefficient. The key to maximization of the timely development of an economic and efficient bulk power supply system lies in the decoupling of QF payments from avoided costs as they are currently determined, and in effect, replacing avoided costs with market-determined prices. To the extent administratively determined rates are still available to QFs, an economically efficient bulk power supply system will not be achieved.

ii) High Front-End Loading Contracts

Notwithstanding the controversy over payment of 100 percent avoided cost, whether or not FERC regulation intended that states set administratively high front-end-loaded contracts has also been a matter of some considerable contention. Front-loading is akin to standing on a street corner and offering to buy VCR's at $1,000 each with no questions asked, because you estimate they would cost $2,000 in 1999, even though they only cost $500 today. Imagine how many VCR's you would receive. But, will they still be useful in 1999, when you need them? Have you locked yourself into a technology that will be out-of-date by then?

Front-end-loaded payments to QFs that bear no relationship to the utilities current avoided costs have a significant impact on ratepayers. The resulting consequences cannot be over-emphasized; it drives customer rates up unnecessarily, makes the utility non-competitive and allows the threat of self-generators to emerge and cream-skim desirable high load-factor electric customers. Moreover, the use of standard levelized prices can, for some projects, render them financially incapable of operating in the latter years of their long-term contract because of insufficient revenues to cover operating and fuel costs.

This front-end loading can also affect the credit of utility companies. Before investing large sums, QF or IPPs require take-or-pay contracts from the purchasing utility. Indeed, such a contract is imperative to support any significant level of financing. Thus, the financial viability of the program is predicated on the credit of the purchasing utility, which is in turn predicated on its regulatory agency allowing the utility to collect the necessary rates over the term of the contract. Because of regulatory risk and prudency issues, it is possible that such QF contracts could show up as a liability on utility books in the future.

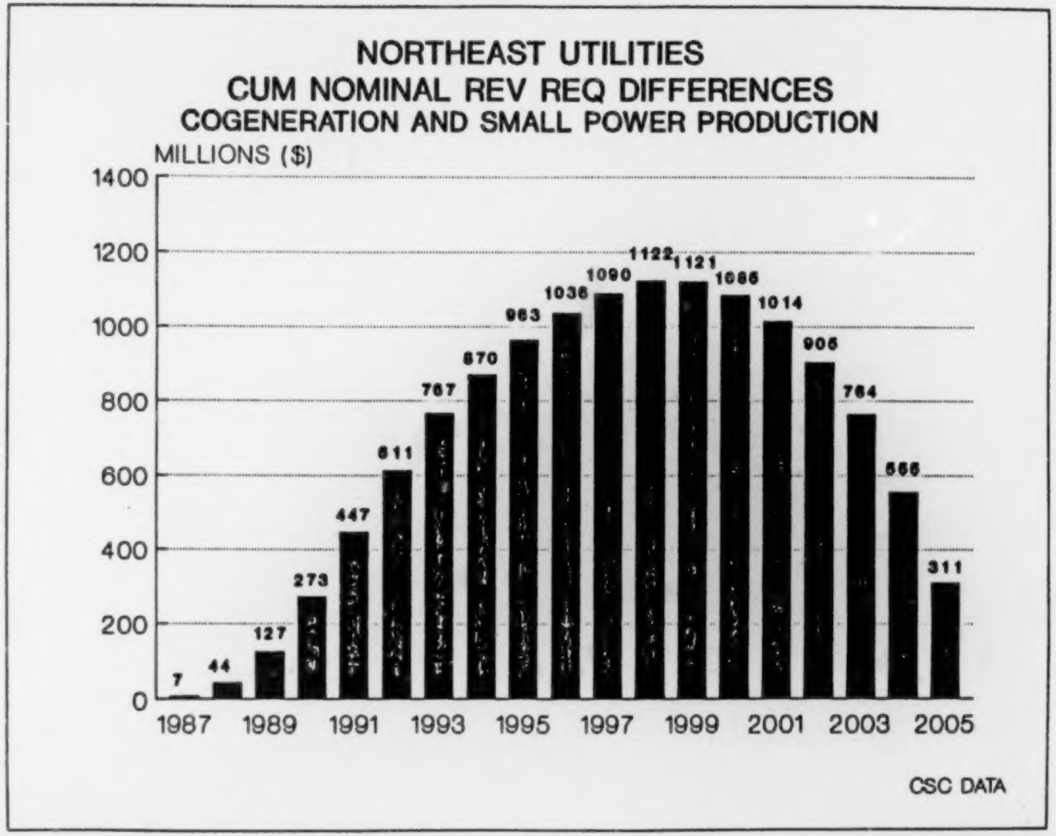
iii) Impact on Ratepayers

In the Northeast Utilities system we are coming to learn that the impact to ratepayers of the 600 MW of QF contracts is substantial. It amounts to increased revenue requirements in 1991 of $175 million over what ratepayers would otherwise pay absent these QFs. Moreover, half of NU's "fuel bill" amounting to $300 million, will be paid to these QFs, yet they will only contribute 14 percent to our customer's energy requirements. More startling, as shown in Exhibit 2, this level of excess -- over-avoided-cost QF payments accumulates to more than $1 billion over the next ten years. Ratepayers will be out-of-pocket until the last day of the contracts, only then would they become economically indifferent.

iv) Emergence of the Threat from Self-Generation

As NU has embarked on its course of encouraging economic and efficient QFs, dramatic consequences have subtly revealed themselves with a resultant deterioration of the utility's competitive position. The consequence of these increased rates on retail customers is the emergence of self-generation, or "bypass" and the threat to NU of losing 600 to 700 MW of customer load. NU has already lost approximately 75 MW to self-generation which by-passes the utility system.

EXHIBIT 2



NORTHEAST UTILITIES
CUM NOMINAL REV REQ DIFFERENCES
COGENERATION AND SMALL POWER PRODUCTION

CSC DATA

A "business as usual" posture by NU would anticipate the need for retail rate increases of approximately five percent per year from now through 1993. These rate increases are driven by the requirement to recoup the 600 MW of QF contractual payments at administratively set rates in excess of the Companies' avoided costs. In dollar terms, rates are expected to go up over $700 million during this period. This situation will seriously undermine NU's competitive position in the marketplace.

As a result, it is projected that NU could lose as much as 20 percent, or 700 MW, of its base load by the early 1990's as the system's larger, high electric load-factor customers switch to self-generation. Because NU would still have to recover its fixed costs of doing business, these lost revenues would have to be picked up by remaining customers, principally residential and smaller commercial establishments. The resultant rate increases of this action could be significant, and lead to a further erosion of load.

NU is responding to this competitive challenge by instituting an aggressive program of internal cost containment management to hold down the costs of doing business including, the reduction of its work force by 600 employees by 1990, improved awareness of our customers' needs, and redesign of retail rates to reflect proper allocation of costs to provide service to each class of customer. NU is taking these measures, not to maintain a monopoly of the market, but simply to remain a viable competitive force and to ensure that NU can meet its public service obligations as efficiently and reliably as possible.

How did we get to such a situation? Primarily through the perception that cogeneration and small power production was "good," per se, that the QF facilities would be small, "Mom-and-Pop" operations, and, the conviction that a stimulus was needed to "get the industry going." High front-end loading of payments was a mechanism that assured financial viability of these projects, and thus the growth of the industry. However, like many of the "good" things in life, "too much" can have as detrimental an impact as "not enough." Administratively set prices in excess of QF costs, guaranteed markets, and preferential tax treatment all combine to distort the true value of QFs in the marketplace -- and ratepayers wind up footing the bill.

b) PURPA Mandates Purchase From All QFs, Does Not Promote Effective Competition, and Produces Excess Capacity

PURPA's mandatory purchase obligation offers the Company no opportunity to control capacity expansion or integrate QFs into a rational, least-cost energy planning strategy. It creates excess capacity. It produces significant adverse short and long-term economic impacts on ratepayers. It also presents system operators with serious control and dispatching problems, because the location and timing of these facilities are essentially random variables.

From a practical viewpoint, and in light of the finite need for (and ability to absorb) new capacity, if the mandatory purchase obligations to QFs remain, no flexibility will be afforded the regulated utility to deal with IPPs. Even when IPPs offer power at more attractive rates and terms than QFs, utilities may be unable to purchase the IPP's power because of the mandatory purchase obligation to QFs. Competition cannot be best served if one competitor -- the QF -- benefits from the mandatory purchase obligation.

Removal of the mandatory obligation to purchase will not disadvantage economically efficient QFs. One should expect QFs, with the best efficiency and a second source of revenue -- steam sales -- to produce the best competitive price and therefore fare very well. As for socially desirable QFs, such as hydroelectric or windpowered facilities, their low operating and fuel cost should also serve them well in a properly designed competitive market. Therefore, QFs do not need the mandatory purchase obligation to continue their contribution of achieving PURPA's overall objective of improved efficiency.

i) Standard Offers

A natural outgrowth of current PURPA regulation requiring mandatory purchase was the development by states of Standard Offers with fixed prices and contract terms. Procedurally, states have interpreted PURPA regulations to require:

1) Mandatory purchase of all QF capacity offered, regardless of the utilities need for additional generation.

2) Projects be dealt with on a first-come, first-served basis, requiring the utility to deal with each QF, without regard to price, the quality of their output, or the impact on ratepayers.

3) Uniform mechanisms, including pricing formulas, be used to develop payments to QFs, based on 100 percent of the company's projected avoided costs.

4) No attempt to distinguish between projects that might provide more or less value to ratepayers due to their fuel source, size, location or reliability.

5) No incentives for a QF developer to deal with a utility in a businesslike manner, that is, to offer their product for sale at a price that provides them with a reasonable profit, yet also provides the ratepayer with an economic benefit.

6) As blocks of capacity are filled by means of "first-come, first-served" signed QF agreements, that utilities be allowed to promptly recalculate its avoided cost and its corresponding price offers. But if the utility is overwhelmed by developers, or states don't review avoided cost promptly, no opportunity exists to recalculate them in a timely manner. Again, its the ratepayer that pays.

While standard offers may have initially stimulated the development of the QF industry, utilities and regulators soon came to realize that a more controlled, stream-lined process was necessary.

After its Massachusetts and Connecticut experiences, and studying practices in other states particularly California, Texas and Maine, Northeast Utilities is convinced that the public interest is best-served by the introduction of a systematic procedure for ranking potential private power projects. The principles embodied in the FERC's PURPA reform initiative to encourage states to institute competitive bidding systems remedy most of the standard offer infirmities.

ii) Excess Capacity

If the utility were required to purchase all QF capacity offered on a first-come first-served basis with no control and at a price equal to its current avoided costs, it could end up contracting for more capacity then is optimal from society's point of view. Mandatory programs at administratively determined prices designed to artificially stimulate production, produce unvarying results -- you get more than you want -- more than you need -- and it costs more than you ever thought it would. It also encourages the development of some very uneconomic QFs.

This situation can lead to the system being required to contract with "excess capacity" (i.e., more capacity than is necessary to economically and reliably serve existing and near-term load). In the meantime, ratepayers would be paying dearly for the mistake. For example, some utilities can be mandated to purchase capacity under a twenty-year contract basis when the need for the capacity is only in the twentieth year.

Regulators in Connecticut are now considering penalizing NU for so-called excess capacity, created, in part, by the Company's commitment to encourage the development of qualifying facilities.

5) THE COMPETITIVE BIDDING PROCESS OFFERS THE BEST OPPORTUNITY TO INTRODUCE COMPETITION AND ECONOMIC EFFICIENCY INTO THE REGULATED UTILITY INDUSTRY

Undoubtedly, if the FERC's regulatory initiatives are well intentioned, and if they have the correct set of objectives, they will lay the ground work to achieve a least-cost energy supply.

We at NU have concluded that the competitive bidding process offers the best opportunity to take advantage of the emerging competitive environment fostered by non-utility electric generation. The bidding process accomplishes this by providing the marketplace with the information and confidence necessary to allow the "best-of-the-best" projects rather than the "best-of-the-worst" projects to go forward. We believe the process, is orderly, simple and equitable and will be able to adjust rapidly to changes over time. Because of the use of market forces, the outcome of this process is likely to be superior to all other approaches, and ensure the maximum benefits to all parties -- QFs, IPPs, utilities and more important, ratepayers.

I must emphasize that in any perfected competitive bidding process, flexibility must be allowed, to enable the process to adjust to changing needs and circumstances. Moreover, if contracts awarded through such a process are pre-approved by the regulators, a great deal of uncertainty and risk arising from the question of the prudence of a utility's action, a major cause of the current rift in the "regulatory compact," should be eliminated.

a) The Competitive Bidding Process Mimics Negotiations

The premise upon which the Competitive Bidding Process is based, should be familiar to most legislators and regulators -- a "balance" of often divergent interests must be found. That balance calls for harmony and compromise by all of the parties having a stake in the outcome. It is not easy to achieve such a balance, but we have found that the Competitive Bidding Process offers the best hope for a rational resolution.

Most people here today are fully familiar with contracting and negotiating methods and techniques -- and the art of compromise. The competitive bidding process attempts to quantify and reveal the process by which the judgments, compromises and interplay normally take place between any utility and non-utility generators during negotiation. The competitive bidding process reveals to the QF or IPP the precise requirements that the utility is looking for, as well as the tradeoffs the utility is willing to accept.

The competitive bidding process that NU filed in Massachusetts and a similar ranking and selection system being instituted in Connecticut consists of:

o A solicitation procedure, by which the utility identifies a fixed block of capacity to be filled with QF-generated power (but could include IPPs, either privately or utility owned), and requests bids for supplying that capacity through the issuance of a Request for Proposals ("RFP").

- The RFP sets forth not only the needs of the utility, such as interruptibility, location and the maximum price that will be accepted, but also the criteria upon which QF bids will be judged and a method of scoring those bids. Each bidder, therefore, can determine its own score before submitting its bid.

- Potential non-utility generators submit bids to the utility for the provision of specific amounts of power within the capacity block under a long-term contract.

- When the bids are received by the utility, each proposal is ranked according to the criteria listed in the RFP. Those bidders with the best score would be chosen, up to the amount of the previously announced capacity block.

- The criteria to be used for project comparisons are weighted heavily by price; but non-price factors are also important. A weighting formula is used to determine the final score of each proposal. The ability of a carefully constructed bidding process to adjust the weighting of various factors over time, to account for changing needs is a key to its long-term success. The utility also sets certain minimum criteria that all potential suppliers must meet in order to be considered.

- The process anticipates that, for the selected bidders, the price paid will be the QF's bid price.

The most intriguing element in the process is the application and value of the weighting factors affecting various criteria that influence the outcome of the ranking of cogeneration projects. The weighting factors are used to indicate which of the project characteristics are important to best integrate the QF capacity into the utility system. Obviously, initially in the bidding process some subjectivity is used to ensure balance between factors so that one weighting factor does not overwhelm all others. In the process proposed by Northeast Utilities to its state regulators, numerous sensitivity analyses were required before we were satisfied that the weighting factors properly reflected the utility's needs.

The bidding process is intended to capitalize on market-driven competition between suppliers to enable those projects to be developed that maximize ratepayer benefits. It offers an orderly, simple, and equitable way to choose among projects seeking front-loaded contracts.

- It is orderly because projects are considered ranked as a group according to their relative value rather than being dealt individually on a first-come, first-served basis.

- It is simple because all developers are fully aware of the criteria upon which they are being judged. The ranking process will be accomplished within a set time. QFs and IPPs benefit because the process is designed to eliminate protracted, time consuming, and costly contract negotiations and regulatory approvals.

- It is equitable because all projects, regardless of their size or operating characteristics, will be evaluated on their ability to fulfill the utility's capacity needs.

The competitive bidding process also offers several benefits to ratepayers.

- First, it stabilizes rates and ties cost of future supply to competitive forces, by increasing the likelihood that the projects awarded contracts will be those most likely to deliver energy at the lowest prices.
- Second, it decreases the risk that projects will fail to operate throughout the term of the contract by giving better scores to projects that are likely to meet their contract terms. Such a process also discourages the practice of "shopping around" with a signed utility contract in hand to find the highest bidder.
- Third, it encourages development of QF capacity closer in time to the utility's need for that capacity, thus saving ratepayers from a protracted period of prepayment for unneeded generation.

Utility shareholders benefit for similar reasons. The competitive bidding process minimizes front-end loading and enables utilities to move toward a least-cost energy supply mix and to defer, or cancel, utility units that appear to be more expensive than QF power.

In summary, it should now be clear that the ranking process:

- stimulates an entrepreneurial spirit within our regulated environment;
- introduces the element of competition;
- provides a stable businesslike framework in which we can attract and effectively contract with cost-effective private producers;
- offers the possibility for rate stability to customers through lower prices and more diversified sources of supply;
- provides the utility and the regulatory agencies with an orderly, systematic, and equitable way of ranking and judging those projects that are most likely to deliver energy and capacity, reliably and at the most reasonable cost;
- creates a better tie into the utility planning process;
- reduces the amount of expensive and time-consuming negotiations;
- decouples prices from a utility's estimate of avoided cost, except that the avoided cost estimate could serve as a cap to acceptable price offers;
- permits a systematic reflection of non-price characteristics of a project which have value to the utility.

The competitive bidding, or ranking and selection process, designed to incorporate the timely development of economic and efficient QFs and IPPs into an integrated utility-planning process is a tool that must still stand the test of time. The Massachusetts DPU approved the issuance of a RFP for Boston Edison, and has recently granted approval, subject to minor modifications, for NU's subsidiary, Western Massachusetts Electric Company, to release its RFP for a 54 MW capacity block. We believe that the competitive bidding process is a very powerful tool that can move us positively toward the integration and full utilization of QFs and IPPs. We also believe it is responsive to the goals established by PURPA and the realities of electric utility economics in the 1990s.

b) The Competitive Bidding Process Can Re-establish the Regulatory Compact

The Monday morning quarterbacking that occurs in prudency reviews, phase-in and excess capacity penalties in the current regulatory arena, are causing utilities around the country to be "risk adverse" and question the value of investing in new generation. Accordingly, there needs to be a re-establishment of the compact between legislatures, regulators, and utilities, on behalf of their constituents and ratepayers. NU suggests that the competitive bidding process, because it requires a thorough review and approval by the state regulators, holds significant promise for such a new compact.

The bidding process requires regulatory approval of utilities' plans to satisfy future load growth. Such plans could include: QF contracts, private IPP contracts, utility IPPs, conservation and load management programs, and also such traditional utility activities as refurbishment of existing units and repowering of existing stations. The utility would not be able to commit to such a plan without state regulators prior approval. Thus, prudent integrated demand and supply planning strategies, including the commitment to QF or IPP contracts, would move forward with the concurrence of regulators.

Such future utility plans could be reviewed on a periodic basis, perhaps once a year, requiring re-justification of the need for capacity and the elements required to satisfy that need. If any elements of the utility plan were deemed inappropriate, they could be cancelled. However, upon cancellation the utility would be permitted to recover its investment to-date. Commitments to the plan would be judged by a set of mutually agreed upon public policy objectives. Those objectives could include not only economics and least-cost objectives, but also national objectives such as a reduction of dependence on oil and achievement of environmental standards.

If such a compact can be deemed to be a pre-prudency review then the competitive bidding process holds the promise for a new beginning, and resolution of a number of contentious and onerous issues between all parties responsible for the nation's electric energy future.

c) Incorporating Conservation and Load Management into the Competitive Bidding Process

The seemingly simple change of adding conservation and load management to the competitive bidding system has far-reaching consequences and raises a multitude of complex issues. It is not merely a balance between the interest of supply and demand options. Issues such as; impacts on ratepayers, cross-subsidization between customer classes, increasing society's total energy costs, and implementation of such a change requires great care and attention.

Conservation and load management resources are more naturally encouraged through correct price signals. Only the customer is aware of its own electric energy redundant needs. Customers perform their own individual ranking and selection process with respect to the energy options available to them, including purchasing from the utility. Moreover, rate design is not discriminatory when its available to the entire customer class.

The FERC has recognized these facts and is has wisely decided to initiate a separate hearing of these issues. We concur.

6) INDEPENDENT POWER PRODUCERS FIT NATURALLY INTO THE COMPETITIVE BIDDING PROCESS

Our experience in New England has been that IPPs can be developed under the present regulatory framework and be competitive even absent the avoided cost requirement and mandatory purchase obligation. NU supports the concept of the introduction of IPPs into free-market transactions between willing business entities for the benefit of ratepayers. IPPs can add to the flexibility. Unlike cogenerators, they need not be sited next to steam loads, but can perhaps be located where they can be better integrated into the transmission system. However, NU has witnessed first hand the problems that can arise with the implementation of a concept, especially when the federal government originates the concept and leaves it to be implemented by the states.

While NU supports FERC's concept of IPPs, the Company does have several concerns that must be addressed. First, Will utilities be allowed to compete to maintain market share? FERC's definition of IPPs must be clarified otherwise three tiers of rules could emerge -- one for IPPs, one for QFs, and one for utilities. This result would not accomplish the objective of allowing free enterprise to promote economic efficiency. Second, under what conditions will the utilities' "obligations to serve" be applied. Will the utilities apparent role as "suppliers of last resort" be removed? Third, what weight will be given to the operational requirements and quality of supply of a QF or IPP as they become an integral part of the electric supply system upon which consumers rely?

As we have shown, the QF industry has developed into a healthy and robust component of the bulk power supply network and does not now need the special incentives -- nor does the IPP industry.

a) FERC's Definition of IPPs May Not Allow Utility Ownership

In NU's opinion, the maximization of the timely development of an economic and efficient bulk power supply system lies in allowing all parties -- the utility, the QF and the IPP -- to compete on an equal footing.

The NU Companies would be gravely concerned if the FERC either 1) elevated IPPs to the preferential status accorded QFs with the associated mandatory obligation to purchase, or 2) insisted on limiting their definition of IPPs to that outlined in the recent Orange and Rockland Order in Docket No. ER88-112-000.

FERC's Orange and Rockland definition provides that:

> "For the purpose of this order, IPPs are defined as non-traditional public utilities that produce and sell electricity but have no significant market power. IPPs lack significant market power as suppliers of energy and capacity because they do not have captive customers. They do not have retail service franchises nor are they affiliated with franchised utilities in the markets in which the IPPs sells power. IPPs also have limited or no control of transmission facilities essential to their customers. However, as public utilities, IPPs are subject to rate regulation under the FPA 16 U.S.C. Section 791A-825 (1982). IPPs do not qualify for alternative rate regulation under section 210 of the Public Utilities Regulatory Policy Act of 1978 (PURPA), 16 U.S.C. Section 824a-3 (1982).

This current FERC definition of IPPs would preclude utilities from providing power in their own service territories, as IPPs. It is unacceptable to NU and, we believe, the entire utility industry.

If the quid pro quo for new capacity is no regulation, FERC's proposal should allow IPPs that are utility owned. It will be very hard for utilities with their current required capital structures to compete with the highly leveraged financing of the independent IPP or QFs. If utilities are allowed to form unregulated subsidiaries, and allowed to compete in their own service territory, then competition will be best-served and our mutual objectives to produce a least-cost energy supply system, with a reliable and energy secure future will be achieved.

FERC's definition of IPP appears to be based on the presumption that an entity having "market power" can control access to the marketplace and can abuse its control to unduly influence prices. Therefore, FERC seems to be saying that a utility having market power should not be able to compete in its own market area. Utilities may have "market power," however, abuse of that market power is checked because of regulatory control over the utility, competition at the wholesale level for load, and the emergence of non-utility sources of supply (self-generation) at the retail level. Indeed, PURPA's very success has been its ability to introduce competition into the utility industry resulting in the emergence of a flourishing non-utility generation industry.

The Commission should focus its policy initiatives on achieving a "workable competitive environment." In a workably competitive environment, market power poses no economic or political threat to consumers. The identity of participants is less important than the environment in which they operate. Market power is a characteristic of almost all firms in any industry and not all market power is bad. Thus, with proper regulatory oversight, in a workably competitive environment, a utility cannot abuse any market power status it might have, and its theoretical market power poses no practical economic or unduly influential threat to consumers or its competitors. NU recognizes that the Orange and Rockland order may not specifically apply to the question of utility-owned IPPs. We are therefore hopeful that, upon further review, the FERC's definition of IPPs will be expanded to include utility-owned IPPs operating in a workable competitive environment.

b) The Utilities "Obligation to Serve"

The importance of reliable electric supply to our consumers cannot be overemphasized. In fact, after the Northeast Blackout in 1965 the President's Commission stated that, "economics should be subservient to reliability." FERC has indicated that it intends to retain very limited jurisdiction over QF generation, and the states would not be able to reach the independents unless they begin providing retail service. Moreover, it now appears that utilities are effectively precluded from building new capacity as IPPs because the qualification is that the builder must be unregulated. The unregulated QF or IPP, therefore, would have no duty to serve, in fact, no utility obligation whatsoever. This raises an important question: should we place the nation's future power supply in the hands of thousands of possibly non-local entrepreneurs who don't have our extensive experience or resources.

When judging QF development, utilities are acting on behalf of ratepayers and are not only making an investment in return for future prospective savings, but also assigning the responsibility for a portion of the electric energy supply system to a diverse set of entrepreneurial ventures. If technical or financial conditions cause QFs to fail to perform, the consequences could be serious. QFs and IPPs should, at a minimum, be required to demonstrate technical ability and financial viability, prior to becoming an integral part of the electric bulk power supply system. Undoubtedly, upon such failure, utilities would then be looked upon as the "supplier of last resort" to remedy a possible untenable situation. In my judgment the entity directly serving the end-use customer naturally has the greatest incentive and interest in the hour-to-hour reliability of the entire electric system.

QFs and IPPs are naturally motivated by a laudable business goal -- profit -- but they are not necessarily instilled with the corporate responsibility or a company charter to provide electric energy to consumers under all circumstances. The importance of this fact becomes apparent when large amounts of QF capacity are relied upon for future energy supply. For a reliable system we estimate that a 20 percent reserve margin is a reasonable figure. By contracting with over 600 MW of QF capacity, three-quarters of NU's required 20 percent reserve margin will be supplied from QFs.

Moreover, if the utility remains the "server of last resort," this monetary impact is only the tip of the iceberg. The risk of capacity shortage remains with the utility, who, on behalf of ratepayers may have to purchase replacement capacity at a premium cost. Thus, ratepayers will be paying for the same capacity twice, once to the QF through front-end-loaded payments, and then again to the utility supplying replaced capacity. How will FERC's policies allocate the risks, rewards and obligations among all players in such circumstances. While we believe that QFs and IPPs can make a valuable contribution to the electric system, we cannot over-emphasize the need to carefully consider the reliability factor in such an allocation.

c) Operation and Control Issues

If QFS and IPPs are to be an integral part of the electric supply system, they must abide by the "rules-of-the-road." Accordingly, one must take great care when affecting the operations of an electric utility system. In a competitive world comprising of the disciplined and the undisciplined the tendency could be for the disciplined to become undisciplined. This is unacceptable; reliability of the electric supply system is paramount, and it cannot be dealt away.

Another important aspect of power reliability is achieving proper coordination and dispatching between all generating units. It is very hard to imagine a major utility's state-of-the-art control center attempting to deal with a large number of small units, whose operators have an entirely different agenda from that of the host utility. They have no direct concern with the obligation to serve or the integrity of the electric network. Their objective is to maximize production of profitability. Disintegration needs very careful review when judged from a control aspect.

Accordingly, in designing a properly controlled system of parceling a portion of the power supply system to non-utilities, care must be taken to permit coordination of system operation.

7) OTHER ISSUES THAT NEED TO BE RECONCILED WITHIN FERC'S REGULATORY REFORM

Within the context of FERC's regulatory reform there are a number of other issues that need to be reconciled within the proposed framework. These are:

a) PURPA Increases Dependence on Foreign Oil and Gas

The Fuel Use Act (FUA) and PURPA were developed under the conservation and efficiency ethic at a time when we were facing serious shortages of gas and oil, with unprecedented fly-ups in their prices. In the 1970's utilities were strongly encouraged by government and regulators to reduce their dependence on oil through major capital investments. NU for one, invested in such high capital cost ventures, nuclear power plants and converting oil units to coal. The DOE even testified before the Connecticut DPUC in 1978, in support of the Company's construction programs. Moreover, numerous successful conservation and QF programs were put in place. We were highly successful in these endeavors -- during the period 1973 to 1987 the NU companies reduced oil dependence from 78 percent to 20 percent.

Moreover, as a result of the nation's determination and vigor to reduce its foreign oil dependency, Congress passed the Fuel Use Act in 1978. That act prohibited gas and oil from being used as a boiler fuel by utilities. This action effectively prevented utilities from building efficient combined cycle units until 1987 when the act was repealed. Advances in this technology, financed by the utilities, are being enjoyed by QF developers and IPPs who were exempt from the FUA.

Ironically, perhaps, the very success of the programs and policies put into place by utilities are creating the opposite affect intended by PURPA and FUA. In New England, economic IPPs and QFs are predominately gas and oil-fired units. They use interruptible gas rates which require the firing of oil during the two or three winter months of the year. These projects typically have lower front-end costs, and offer stiff competition to utilities struggling to bring into rate base the high capital cost investments made under previous government mandates.

b) Transmission Access

Utilities transmission and distribution systems are planned, approved, built and operated as an integrated system. The transmission systems were built on behalf of, and paid for, by ratepayers. Indeed, prior to receiving state authority to site and build a transmission line, the utility must prove that the line is needed to serve the best interest of the state's consumers. Most transmission was installed prior to the last ten to fifteen years. Accordingly, the embedded costs are significantly lower than transmission lines if they were built today --- if indeed they could be built at any cost.

While it may be true that some transmission systems have available capacity for additional power flows, these "reserves" have been put in place for the benefit of ratepayers to accommodate their future load growth. Those who supported the transmission and distribution systems initial construction and continuing operation and maintenance expense should benefit from that transmission.

However, QFs, IPPs and other private power producers have been heard to demand that any available transmission capacity be assigned to them on a mandatory basis -- without regard to reliability, and to the detriment of ratepayers. Moreover, they demand that the cost of transmission access be on an embedded basis and not reflect the true market value of the transmission capability.

Many independent producers have linked competitive bidding with open access to the transmission system and have equated access to the electric transmission system with access to natural gas pipelines. However, the purpose, design and operation of these two transportation systems are vastly different. For example, the structure of the electric and gas industry differ. Unlike the electric system, the gas industry is not vertically integrated. Similarly, the gas transportation system is not networked like that of the electric system. Indeed, one of the reasons for the integrated electricity system is the physical inability to precisely control electricity flow -- and thus the need for instantaneous coordinated operation -- not required in the gas system because of their storage capability. Moreover, the regulatory scheme over the two industries differ where FERC has significant authority over pipeline rates and siting, whereas electric utilities are much more subject to shared, federal/state regulatory oversight. These differences must be recognized in formulating any policies with respect to access to the electric transmission system.

Short-term transmission wheeling contracts between utilities are unlike the requirements of QFs or IPPs which lock up a utilities' transmission capability for twenty to thirty years. By allowing transmission access to QFs and IPPs up to the full rating of the available lines, any incremental ratepayer load above the transmission line capacity will have to be paid for at current costs. Who should pay those costs, the ratepayers or the QFs and IPPs? Obviously, we believe the latter. That does, of course, assume the utility can get authority to build new, or uprated transmission lines in the face of increasing opposition.

NU's practical experience indicates that the massive influx of QF power into transmission and distribution systems, that were not originally designed to accept such power, can put those systems under stress and cause transmission limitations. In southeastern Connecticut where utility generation exceeds customer load substantially, QFs plan to install about 500 MW of capacity. NU will therefore have, under certain circumstances, some significant difficulty getting utility contracted power to New England and fulfilling our obligation to NEPOOL on the existing transmission lines. The problem is so serious that we have had to negotiate interruptibility provisions in most of the contracts with QFs. These interruptibility provisions give the utility the right to shutdown or reduce QF output for limited times during periods when the transmission system is overloaded. However, in light of PURPA's must-take requirement, such interruptible provisions, while essential, resulted in very contentious negotiations. Moreover, self-generation which has the same affect of increasing transmission line loadings, can exacerbate the transmission overload problem to a large degree. But, neither FERC, the states, nor the utilities have any control or contractual rights with self-generators to rectify this situation.

On the opposite side of Connecticut, in the southwest corner, load growth has been high and we have a transmission and generation deficiency. Interestingly, no significant amounts of QF generation has been proposed for that area. We believe this situation could be remedied, if a properly designed competitive bidding system were in place. Incentives could be given to QFs to locate in southwest Connecticut with disincentives for locating in southeast Connecticut. Such signals properly reflecting utility needs can be sent through the bidding process directly to QFs and IPPs.

Another subtle threat reveals itself once QFs and IPPs and the bidding process is adopted by FERC. It is possible that the tables will be turned on the utility. Private power producers could take the position that because the bidding process is in place competition really cannot work, without unrestricted wheeling or transmission access. By then the economic interests of the private power producers will be so great that the pressure for mandatory transmission access will be irresistible.

We believe the FERC is fully conversant with the realities of operating a transmission system and the complexity of the technical constraints that can exist. They have wisely put off addressing this issue until another day. However, FERC should retain the workable, voluntary access policy on transmission in place today, and not mandate transmission access.

c) Incorporating Municipal, Federal and Rural Electric Cooperatives into the Process

How do we reconcile competitive bids by the subsidized utilities -- the municipal systems, the rural electric cooperatives, G&Ts, the federal and state power authorities and their IPPs? How do we compete against those with subsidized financing costs and tax exemption privileges? These difficulties must be resolved before an all-source system can be put in place.

8) PUBLIC UTILITY HOLDING COMPANY ACT REQUIRES MODIFICATION BY CONGRESS IN ORDER TO ALLOW ALL SUPPLIERS TO COMPETE ON AN EQUAL BASIS

The one area that FERC has no jurisdiction, and requires the direct action of Congress is, modification to the Pubic Utility Holding Company Act of 1935 (the "Holding Company Act") to allow utilities to compete on an equal basis. The NU system is a registered holding company system under the Holding Company Act. As such, the investments and activities of NU and its subsidiaries are limited to a single integrated public utility system and such other businesses as are reasonably incidental and economically necessary to the operations of its public utility system. In simple terms, this means that federal law tells us to limit our operations to operating an electric business for customers in our region, and closely related businesses.

It is not my purpose to review all of the effects of the Holding Company Act on the NU system, or the ways in which the Holding Company Act could or should be modified. However, I do want to focus on the Holding Company Act's restrictions on a registered holding company's ability to become involved in IPP activities.

Until 1986, the staff of the Securities and Exchange Commission (SEC) responsible for administering the Holding company Act would have rejected an application by NU, or any other registered system, for authority to engage in QF or IPP projects away from its traditional service territory. In 1986, Congress modified the Holding Company Act in Public Law 99-553, to permit involvement by registered systems in qualifying cogeneration facilities, regardless of whether those facilities are located inside or outside of their traditional service territories. However, Congress did not address IPPs in that law, so the prohibition against IPP involvement outside of a system's service territory remains.

Under one of the scenarios contained in FERC Chairman Hesse's regulatory initiatives, as we understand it, utilities may not be permitted to bid to build new generating plants in their own service territories. If this were the case, except for the limited exception for qualifying cogenerators, regulated systems like the NU system would effectively be precluded by these regulatory initiatives from building facilities inside their service territories and by the Holding Company Act from building facilities outside their service territories. This not only puts registered systems at a financial disadvantage vis-a-vis IPP developers who are not so restricted, and even from utility companies that are not subject to the Holding Company Act, but it also decreases competition by precluding participants with particularly useful experience and resources from competing in the generation marketplace.

We believe that the reasons for exempting qualifying cogeneration facilities from the restrictions of the Holding Company Act are equally applicable to utility-owned IPPs. Therefore, we believe that, in conjunction with the regulatory initiatives being considered at FERC, the Senate and the House should initiate legislation to permit regulated holding company systems to participate in the IPP market.

9) CONCLUSIONS

There are a number of all important questions to be resolved before we can move forward with an all source competitive, economically efficient system. The impending FERC regulatory changes will have far reaching implications, and the Companies believe that an honest and open dialogue and consensus between all interested parties is essential to arrive at the ultimate goal of reliable, energy secure, and least-cost electric supply for the enduring benefit of this nation's electric energy consumers.

NU believes that IPPs can be developed under the present regulatory framework and be competitive. The real issue is not with stimulating economic IPPs, but with the requirement that utilities must purchase QF power at administratively set rates. Such a requirement would limit the utilities' flexibility in meeting a finite capacity need.

When judging QFs or IPPs, or any other form of non-traditional power supply, we must remember that we are not only making an investment in return for future prospective savings, we are also assigning the responsibility for a portion of the electric energy supply system to a diverse set of entrepreneurial ventures. These businesspeople are naturally motivated by the same goal as investor-owned utilities -- profits. However, they are not necessarily instilled with the corporate responsibility or a utility charter to provide electric energy to consumers "on demand" under all circumstances. The present system of regulated public utilities of which NU is proud member, has built a national grid that is the envy of the world and is vital to the economic health of this country.

NU endorses the spirit and intent of the FERC initiatives as we understand them and we are confident that the Commission will give careful consideration to all aspects and ramifications of these proposals. Competition is not the end in and of itself, but rather a means to achieving the true goal -- a least-cost, reliable and energy secure supply for the benefit of the nation's consumers. A perfectly competitive world is probably unattainable, especially in the near term; therefore, the Commission should identify the strengths of competition and regulation and blend them together into a policy whereby utilities, QFs, and IPPs alike operate within a workably competitive environment.

The Chairman. Thank you very much.

Mr. Ellis, you and Mr. Peevey both speak about the charges to your utility, extra charges, because of the operation of PURPA. In your case it is because of front-end loading. At least your statement says it is because of front-end loading.

Mr. Ellis. Yes, sir.

The Chairman. Is that, in effect, because the PUC charged you with more than real avoided cost in the early years by averaging out the cost?

Mr. Ellis. Yes, sir. That is exactly correct, and all for the purpose of promoting and inspiring cogeneration in a service territory, cogeneration that was unlikely to occur if only the precise avoided costs year by year in those early years was offered.

The Chairman. So that do you expect ever to recover that avoided cost?

Mr. Ellis. No, sir, we do not know for the full hit of projects. Some of them are better than others, but overall we do not believe that customers will recover what they will have paid in.

The Chairman. Now, that's really not because of PURPA but because of the PUC.

Mr. Ellis. Yes, sir, from their own interpretation of what is required, plus a policy of promoting early development of cogeneration as a matter of state energy policy.

The Chairman. They just have certain preferred kinds of cogeneration or electric generation that they want to propose.

Mr. Ellis. I'm not sure, sir, that it was a type. It was rather to have any of it at all in a large quantity would require this particular pricing being offered up. And that pricing, although it brought cogenerators to the table, did result, as it turns out, in very significant charges to rate payers to make it happen.

The Chairman. And in the long term, rate payers are hurt by that.

Mr. Ellis. Yes, sir.

The Chairman. Mr. Peevey, how did they do it Southern Cal?

Mr. Peevey. Well, it was the California Public Utilities Commission's implementation of PURPA. Basically what happened in the early 1980's, the State of California made a policy decision. It didn't want to rely on large nuclear power plants or coal plants to meet its electrical energy needs in the future and instead wanted to rely on renewable and alternative technologies and cogeneration. The California Public Utilities Commission under PURPA implemented an administered pricing mechanism that set payments by utilities at a 1983 projection of oil prices. And that was escalated up, up, up, up throughout this decade and into the 1990's. Well, we all know what happened with oil prices. They plummeted rather than increased.

The difference is that now today in our company we are paying to QFs of all types, wind, solar, cogenerators and so forth, biomass, geothermal producers, in total in 1988, compared to what our avoided cost is today, overpayments of $200 million alone in 1988. And our sister utility, Northern California PG&E, says and believes that figure is even higher. We estimate that these payments will, before they run their course in the mid-1990's, because they were for a 10-year period, will be in excess of billions of dollars over what our avoided costs are. Now, the public pays this, the public in all forums.

The Chairman. Was it obvious that was improvidential at the time?

Mr. Peevey. Yes. And it is why, very frankly, that we urged so strongly last year that the FERC concentrate its efforts on PURPA itself and its implementation rather than going off in the direction that unfortunately it has gone.

The Chairman. Has that been a problem for anyone else?

Mr. McCollam. I can answer that for the industry. It has been a problem in other areas, particularly in Texas.

The Chairman. Should we do anything about that, or has that problem lessened in recent years? I know that's a separate issue from this NOPR.

Mr. McCollam. I think it's a matter, Senator Johnston, as Mike Peevey has indicated, for FERC to exercise more oversight over the implementation of PURPA and come up with some guidelines which presumably they have in mind at some point to prevent these abuses. It is not only buying at costs that are higher than true avoided cost, but it is buying power that is literally not needed.

The Chairman. And that should be FERC and not by statutory edict.

Mr. McCollam. We feel that FERC ought to have the first shot at this within the framework of the existing statute. We think there are some guidelines that they could promulgate that eliminate some of these abuses. Now, whether in the final analysis changes to the law would be required remains to be seen.

The Chairman. With the exception of those problems, has PURPA been a success or a failure in your opinion, Mr. McCollam?

Mr. McCollam. I think that's a difficult question to answer categorically. It certainly, as has been indicated, has resulted in excess cost to many utility customers in these areas where cogeneration is coming out the ears. There was a good rationale for PURPA promoting cogeneration in the interest of energy efficiency and equity. But what has happened is the equity part of it has been lost in the equation. That is, the customers have suffered because of the implementation of PURPA.

The Chairman. Mr. Disbrow, you talk about the risk of bankruptcy, about the leveraging of debts for IPPs. I'm wondering how big a risk of bankruptcy is there considering that they get a guarantee of a payment of so much per megawatt and considering that they should know going in fairly much what their fixed costs are, and further considering that if they do run into financial difficulties, there are not very many other creditors who could do much else with those assets but dedicate them to the generation of electricity? In other words, how big of a real risk is there that highly leveraged IPPs would deprive the utility of the source of electricity that they would be receiving?

Mr. Disbrow. Well, Senator, I did not suggest bankruptcy was imminent as a result of high leverage. But the higher the leverage, obviously the higher the risk.

The underlying credit, of course, is the electric utility. But I respectfully submit if we go to very high leverage in an IPP—say 90/

10—what we have committed to that—and that's an independent company or some other company above—and we get into difficulty and not everything works as well as we think it will when we start out, and we start lose money on it. The question is will we continue to provide the energy and the capacity to the utility.

The CHAIRMAN. "We" being the utility?

Mr. DISBROW. The IPP.

Or will we default? Now, if the utility needs the capacity and the energy, the utility really has no bargaining position. It must accede to whatever those demands are. In any extreme the IPP could go into bankruptcy, and the only thing left there is perhaps 10 percent common equity which, if they had gone to a second tier of 90/10 leverage, is 2 percent common equity. That second company is at risk.

The CHAIRMAN. What I'm really asking is it would seem to me that the risk of bankruptcy should not be that great because it is not as if their sales had suddenly dropped off. I mean, they've got a guaranteed amount of sales at a guaranteed price, don't they?

Mr. DISBROW. I don't think that the IPPs can be dealt with as the QFs or that we would be required to take every bit of energy that they could produce. It would be a different kind of contract than PURPA requires of the utilities.

But basically, if that's a good idea, if you want to go back to the old days of very high leverage, then why don't we permit the electric utility industry itself to go back to that high leverage because in the final analysis——

The CHAIRMAN. That's a separate question, and perhaps we should allow that. Frankly, I think their protections—perhaps that should be allowed.

But with respect to IPPs, I'm just wondering about the risk factor. I mean, they've got their protection in the contract up front. But if all goes wrong and they somehow are not—somehow they had a lawsuit or something and they go bankrupt, then what? It seems to me in a bankruptcy situation that the utility is not in that bad of a situation because the assets there can only be used by one thing; that is, to generate electricity. And whether in Chapter 7 or Chapter 11, they essentially have got to be used for that purpose; that is, to generate electricity. And there's basically only one customer which is the utility. Is that wrong thinking?

Mr. DISBROW. No. The asset, you're right, would be used for electric power production and nothing else. But they could withhold from the market. There's nothing that forces them other than contract provision from supplying. And if it becomes unprofitable to them, they have a very limited equity asset at risk.

The CHAIRMAN. Well, they really can't withhold from the market because if they go to bankruptcy, then their assets are put up for sale or either under Chapter 11 for administration by the court with only one customer. Don't they?

Mr. DISBROW. Perhaps that would happen, but they can also not go into bankruptcy, but just refuse to supply unless they get relief from the contract provisions if they find that those contract provisions are not satisfactory.

The CHAIRMAN. Well, they can be forced to, can't they, under the contract?

Mr. DISBROW. By whom? Well, sir, we have litigated for specific performance in many instances over my term with the company, and litigation may take 3, 4 or 5 years and the lights have to go on this morning and this evening.

Mr. MCCOLLAM. Senator Johnston, in my prepared statement, which was filed for the record, to elaborate a little bit further on what Mr. Disbrow has said, I point out that an unregulated IPP, as he has suggested, has only a contractual obligation. Frankly, our experience in the industry with fuel contracts particularly has demonstrated that those contracts, no matter how well written, do not always assure performance over the long term. And I can tell you from my own personal experience in Louisiana where I was the CEO of a utility that we had a problem with the performance of our gas supply contracts, and that is still in litigation and not yet settled.

So, I think we are little bit gun shy on just relying on this contractual obligation in terms of the ability of the entity to perform. I think it is a real risk that you have. There may be a bankruptcy that may come about as a result of something completely unrelated to the power supply.

The CHAIRMAN. Well, obviously that is true. I mean, I'm not saying you can take all the risk out of it. I'm just trying to assess how big is the risk because you talk about the obligation of the utility to keep the lights on, and certainly that is what everybody's interest is, but just how big is that risk? That's the question.

Mr. PEEVEY. Senator can I add just a slightly different perspective on this?

The CHAIRMAN. Yes.

Mr. PEEVEY. I think that what is at issue here, putting aside the bankruptcy point for the moment, is whether a system, a vertically integrated utility system—today we provide almost all the generation—we and other utilities that make electricity that we all use and keep the lights going in this room and all across the United States. We provide it.

What is being proposed by FERC is a breakup, a disintegration of that vertical structure so that generation is provided by many, many, many producers rather than a few, and control moves away from the utility. Now, that may be good or bad depending on one's philosophical and other perspectives. Our point of view is that reliability will suffer in such an instance. And I am convinced of that.

Let me give you just one example of how. And I don't want to guild a lily or go overboard on this. But last fall the New York Times did a series of articles on PURPA, 10 years afterwards, its implementation and so forth. They cited as an example a soap company in Long Beach, California, put in a 10 megawatt cogeneration unit. Now, I don't know how that cogeneration unit was financed, what the leverage was or anything else. It's not central to my point. But for various other business reasons, that soap company closed down its business in Long Beach. With that went the 10 megawatt cogeneration unit that we bought electricity from.

Now, one could say how often does that occur. And the answer that I can only give you is if I could foresee the future and the economic ups and downs of our country, I could tell you. But obviously, reliability does suffer to some extent when you go from an industry that is solely—its business is to produce electricity for consumption by industry and agriculture and residential users and go to an industry that in significant part has other principal purposes for being in business and produces electricity as their byproduct.

The CHAIRMAN. Let me stop you right there. I have been advised—I can't vouch for the truth of this, but I've been advised that in the aggregate the reliability of PURPA-produced power is higher than that produced by the utility itself.

Mr. PEEVEY. Well, I think that there would probably be some difference of opinion reflected at this table with that assertion.

The CHAIRMAN. Has that been quantified?

Mr. MCCOLLAM. I would say that is absolutely not correct myself based on my own experience in the industry and what I know about the industry. I don't think that would be a fair statement.

The CHAIRMAN. Mr. Geist?

Mr. GEIST. I can't answer that specific quantifiable number, but if I can put a slightly different spin on the ball, I'd like to do that, if I can now. And that is the reliability question is clearly one aspect of what we're talking about in terms of our Nation's electric power supply. But the other aspect of what we are talking about is how do we develop the most competitively priced electric power supply now that our country is in the middle of this international competitiveness.

The CHAIRMAN. I understand that, but let me zero, first, in on this reliability. Is there any way to quantify that? Is there a big difference? You contend that it is much less reliable with the QFs.

Mr. PEEVEY. I would say both using Latin based on a priori reasoning that it has to be less reliable. I cannot quantify it exactly today. We could certainly try to give you some demonstrable facts on our own system of how reliable geothermal and how reliable the wind producers and so forth have been. I can tell you they have been much less reliable than they claimed they would be when they began. There's absolutely no doubt about that.

The CHAIRMAN. I know those windmills out there in California have not been.

Mr. PEEVEY. We have 20,000 or so windmills in California. Let me tell you if one was Don Quixote-like, you could have a lot of fun. But they have proven to be very unreliable as a source of electricity. Geothermal has proved to be more reliable. It differs from technology to technology.

But when you have many, many producers of something whose prime purpose is not to produce electricity, but to sell a product and have as a byproduct electricity production, they are going to tend to be less reliable than those who solely produce electricity.

Senator MCCLURE. Mr. Chairman, would you permit me to ask one question about reliability at that point?

The CHAIRMAN. I tell you what. Let me ask a one-word answer, and then I'll turn it over to you.

Does everyone believe that you should not have the power to wheel here? Is there anyone who thinks you should wheel, have a wheeling power? Everyone disagrees?

Mr. DISBROW. You are speaking of mandatory wheeling or voluntary wheeling?

The CHAIRMAN. Mandatory.

Mr. DISBROW. I'm against mandatory.

The CHAIRMAN. Everybody is against mandatory.

Mr. MCCOLLAM. The industry position, Senator Johnston, is definitely against mandatory wheeling.

The CHAIRMAN. That's what I thought. Senator McClure?

Senator MCCLURE. Well, I only wanted to ask you in terms of reliability to separate two different measures of reliability, one being the operating reliability of a plant that is continuing in operation, and the other factor I think, Mr. Peevey, that you were talking about, and that is reliability in the terms of cessation of operation of a unit of generation. Is there any difference between those two measurements?

Mr. MCCOLLAM. Could I just comment on that? There is quite a difference between individual plant reliability and overall system reliability, which I believe is the point you're getting at.

Senator MCCLURE. Yes, sir.

Mr. MCCOLLAM. Overall system reliability can be adversely affected, obviously, if you have individual plants that don't perform well.

Senator MCCLURE. As I recall, Big Alice wasn't really all that reliable.

Mr. MCCOLLAM. Well, that's my recollection as well.

Senator MCCLURE. And that had a lot more effect on system reliability than did cessation of operation of one 10 megawatt producer.

Mr. MCCOLLAM. Right. That has got to be the overriding concern, obviously, of a utility with the obligation to serve, and that is to insure that you have overall system reliability.

Senator MCCLURE. Let me ask this question. Is the growth of IPPs one way to get around prudency reviews, Mr. Geist?

Mr. GEIST. It does seem to me that both a competitive bidding system that allows for QFs and IPPs as the judge whereby a price is passed on to a consumer does, in fact, settle the prudency question, yes.

Senator MCCLURE. Because you have a contract which is approved, and the contract has the risk in it.

Mr. GEIST. Well, and presumably that contract has been subject to some competitive review as well as the contractual negotiations. Yes.

Senator MCCLURE. Is that one of the reasons why some people within the industry may favor permitting the growth of IPPs?

Mr. GEIST. I think that's a corollary benefit. It's not certainly the driving reason, but it's certainly a benefit.

Senator MCCLURE. Let me ask this question. If the state regulatory agencies can okay the construction of a power plant and then at the end of the period of time institute a prudency review, couldn't they also okay the entering into of a contract, and then by the time the power plant is produced, decide, hey, that it wasn't such a good idea? We've decided you shouldn't have entered into that contract.

Mr. GEIST. I would hope that in the design of the system you can take some of that uncertainty out of it. But is there a way to come back and second guess opinions today on contracts as well as construction? Yes, sir, there is.

Senator McClure. Isn't there the same time period and the same opportunity for the interjection of review by public utility commissions?

Mr. Geist. Typically I would believe that our experience so far on purchasing out of contracts don't generally have a 10 to 15 year lead time but may have a several year lead time. So, I would assume that you're dealing with perhaps only one-third of the time frame presently. However, as the IPP ideas that are presented here are expanded—for instance, you may have base load plans as IPPs as opposed to just smaller plants—then the time frame could lengthen out.

Senator McClure. Are there any of the others of you who would like to comment on that?

Mr. Disbrow. May I comment, Senator?

Senator McClure. Mr. Disbrow?

Mr. Disbrow. I think we are at as great risk or perhaps even greater risk entering a 20 or 30 year contract of building our own facility. And proof of point is what has happened with fuel contracts which were competitively bid at a point in time when coal prices in our company were extremely high. And they are now being subject to regulatory review and some disallowances. And I don't think we would result in any different situation absent regulatory reform on IPP contracts.

Senator McClure. Mr. Ellis?

Mr. Ellis. Yes, sir. Senator, I might at least say that it might offer a better answer for today in order to see to it that there are economic new sources made available to an industry which has otherwise been badly burned and disheartened with the old process, and especially trying to build large base load units.

However, I am, in looking over the history of the past 10 years, convinced that there is an ongoing creative effort amongst all the parties involved in regulation to keep things open enough so if down the road something isn't working out well, that there will be remedies that may well go against decisions that are made today.

Senator McClure. Mr. Peevey?

Mr. Peevey. I just wanted to add that we have built as a company, Edison, large base load power plants. We have undergone prudency reviews. We had $200 million of the investment in a large nuclear facility in southern California disallowed. Having said that—and we felt it was unfair. The California commission disallowed $199 million of our construction costs, and we thought that we had adequate explanation as to why costs were higher than we had originally anticipated.

After saying that, I do not think that there is anything inherently wrong with prudency reviews, and I don't want to throw the baby out with the bath water if the implication is that we ought to substitute IPPs for prudency reviews because some people have not fared well under prudency reviews because they poorly planned or they have 100 percent excess capacity or whatever the factor may be. The thing is that prudency reviews intelligently done have a proper place in the history of regulation and they shouldn't be feared by anyone who does their job well. After all, our responsibility as a utility is to be prudent. That's what the public expects of us. It's a challenge we accept.

Senator McClure. Does anybody else want to make a comment on that? You all agree prudency review is a good thing?

Mr. Peevey. I said intelligently——[Laughter.]

Mr. Disbrow. Senator, the key words that Mr. Peevey used, and I would agree with them with a caveat are "well done." But an after-the-fact prudency review may not be so well done.

Mr. McCollam. Our experience in the industry has been that in a lot of cases they have not been well done, and that is the reason that we feel there have been some unfair decisions made on disallowances with prudency reviews all over the country.

Mr. Geist. I think it is important to observe that it is a benefit of this decision making system that you can address judgment and hindsight, second guessing, as opposed to a prudency review. And I agree that prudency reviews properly done are fair. But what we have seen is how do we go back and remake history. I wish that I had made a different decision based on the facts, and the facts then really did support those decisions. It strikes me that one of the things we are wrestling with here is is there a better way, a better creative decision making system, to improve the poor administration of prudency reviews.

Senator McClure. Well, it would seem to me that the IPPs by themselves don't necessarily insulate against prudency review, but I would think that they reduce some of the hazards of prudency review——

Mr. Geist. Yes.

Senator McClure [continuing]. Because you have a third party contract that is enforceable in court.

Mr. Disbrow. Could I comment on that, Senator?

I think a good illustration of the danger is in FERC's order 500 where they have set aside all of these take-or-pay contracts in the gas industry and kind of divvied up who pays what. But those contracts were entered into in arm's length bargaining at a different time in a different economic environment than we have today. Gas prices—I'm sure the Senator would like to see them a little higher perhaps because it has been very tough on certain areas of the country. But they have now set them aside. Now, what leads us to believe that if I have a 30 year contract with an independent power producer and circumstances were to change, that they wouldn't equally set that aside?

The Chairman. Would the Senator yield for a comment?

Senator McClure. Surely.

The Chairman. As I understand it, under the NOPR, at least FERC contemplates, that the PUC would have to approve the requirement of certain electric demand before you go to a bid. And if they do that, I don't know how they can come back later and say it was imprudent that you asked for that electricity.

Mr. Disbrow. May I respond to that as well?

Senator McClure. Surely. Mr. Disbrow?

Mr. Disbrow. Currently we have to go in with low capacity forecasts perhaps on an annual basis in most jurisdictions, and we also have to go in if we want to build a facility and get a certificate of convenience and necessity from that commission. But there is no guarantee that once that facility is completed, even if it is within budget, that they will recognize it for rate-making purposes. The economic decision is delayed until, under certain law, used and useful or the plant is in operation. So, they do get two bites at the apple. And what we are saying is regardless of whether we get their approval on an IPP contract up front or we get a certificate of convenience and necessity and a blessing on our low capacity forecast, we are still at the same risk.

Senator McClure. I would submit too that FERC has already shown the ability to change their mind on certain other contracts, particularly in the transmission of gas purchase fields where arrangements that they had approved, they later disapproved.

Mr. Disbrow. That's right.

Senator McClure. I think there is at least a reason to anticipate that possibility, although again it would seem to me that that might be a little bit lower with an IPP with a third party contract than where you have only the judgment of the public utilities commission and the judgment of the utility in conflict.

Mr. Geist. Senator McClure, the procedure, as I understand it now, that FERC is suggesting is that the states would have to certify to the FERC with regard to the amount of capacity and the contract under this IPP proposal. So, there's an effort there to address clearly was this a prudent decision made on the front side.

And further, the uncertainty that we are describing here is one of the very reasons that is driving all of us involved in this industry to say there must be a better way to build some of the system in the future. Now, we are obviously not in total agreement here, but we're not in total disagreement either.

And part of the options for those utilities who have said I really don't want to take a 10 year, an 8 year or a 15 year risk in the future, and one of the options I would like to have is the ability to purchase from someone else. Now, not everybody will agree with that. But this is an effort to add to the Nation's supply or menu of suppliers.

Senator McClure. I appreciate that comment. Really what I was trying to get at is how much of what I see of utility support is really a reaction to the uncertainty in the regulatory climate seeking a new way to avoid that uncertainty rather than trying to correct the uncertainty itself.

Mr. Disbrow. Senator, may I comment just one more time?

Senator McClure. Surely.

Mr. Disbrow. I agree with Mr. Geist, but we already have the opportunity to employ IPPs in our supply mix if we so elect. There is nothing precluding us from doing it, and we don't need the FERC initiative to encourage it.

Beyond that, sir, when you said you felt there was an extra degree of comfort in competitive bidding of contracts vis-a-vis construction, in State law—at least in the states that I'm familiar with—today's commission, as the state law now stands, cannot bind tomorrow's commission. So, whatever they say today can be changed tomorrow if it is a different commission.

Senator McClure. And you might be liable for breach of contract which you wouldn't be allowed to recover.

Mr. Disbrow. That's correct.

Senator McClure. Theoretically.

Why should IPPs be exempt from the Public Utilities Holding Company Act?

Mr. ELLIS. Senator, my position that I spoke to today was not so much that all IPPs should be exempt, although there are clearly people that will appear before you here today to argue that, and they are able to do so from a perspective different from that of an ongoing utility.

Our concern is that as a regulated public utility holding company we are precluded from participating openly in the IPP process because of the requirements of the act. And therefore, one way of putting what I'm looking for is that IPPs should be exempt. For my own purposes, more specifically what I'm looking for is for existing holding companies to be exempted from prohibitions that would keep them from being able to participate openly in that marketplace.

Senator MCCLURE. Is the alternative to have IPPs under the same restrictions?

Mr. ELLIS. That's not clear to me, sir.

Mr. PEEVEY. Senator, I think as Mr. Ellis has pointed out, what you have given the FERC proposal is the classic Catch 22. FERC says that utilities cannot operate as an IPP in their zone of economic influence. At least that seems to be the proposal. And yet, the Public Utilities Holding Company Act wouldn't allow them to operate in a non-integrated fashion. So, for utilities—and I think we would all agree—this is the Yossarian, Yossarian, Catch 22 situation to the T.

Senator MCCLURE. Thank you. I have one other question that I would like to address for whatever comments from each of the members of the panel.

There are two specific recommendations. Mr. Disbrow and Mr. Ellis have both indicated a reform of the regulatory process. Are you referring—well, let me rephrase that. It seems to me that what you're suggesting is that FERC be given greater authority with respect to the State regulatory process. Am I correct?

Mr. ELLIS. No, Senator. I'm not quite sure that I would suggest that.

In particular in the reform of PURPA, as it goes to the question of qualifying facilities, the computation of the price that has to be offered to them, the requirement that they must be purchased from, that you have to buy the power they produce, those are modifications in FERC regulations that are needed I believe to clarify the situation at the state regulator level. Otherwise, our concern is that there appears to be a growing sense that FERC needs to do something to provide a proper ground for IPPs to operate. And it may be debatable whether or not FERC needs to do anything.

My concern is that there is such a sense on their part that something needs to be done, that it may be done in a way that complicates the matter and reduces the effectiveness of it rather than improving the effectiveness. And that is why we are so bent on requesting that any regulations that are handed down do not restrict the marketplace, make it more difficult for existing utilities to participate in that marketplace.

Senator MCCLURE. Well, are you referring now only to greater regulatory authority between the Federal Government and state regulatory agencies in the instance of IPPs? Is that the only area that you're suggesting that FERC should have some direction of the State regulatory process?

Mr. ELLIS. No, sir. I am concerned that they are already acting to create within their authority some changes in regulation in order to create a marketplace for IPPs. And I would strongly urge that what is done in that arena be done properly. I am not arguing for increased or decreased authority in that regard at all.

Senator MCCLURE. Mr. Disbrow?

Mr. DISBROW. I believe the need for reform is applicable both at the State and at the Federal level, but I would not suggest any change in the balance between State and Federal regulation.

Senator MCCLURE. Any other comments?

Mr. MCCOLLAM. I think that is the position of the industry. The authority is fairly well spelled out in current statutes and also there are certain constitutional provisions. We are not suggesting as an industry any legislative changes. We are suggesting within the framework of existing law that both FERC and at the State level improve the regulatory process.

Senator MCCLURE. Well, one of the reasons I asked that question is when avoided cost calculations first came up, there was a great deal of lack of uniformity among state regulatory process approach to that problem. One of the things FERC is moving toward—and I understand you to support it—is FERC guidance of the State regulatory process.

Mr. MCCOLLAM. That is correct, sir. We strongly support that and urge——

Senator MCCLURE. That's an increased involvement in FERC oversight of the state regulatory process, is it not?

Mr. MCCOLLAM. In that sense, that's true, but it is also carrying out the mandate within the Public Utility Regulatory Policies Act.

Senator MCCLURE. Well, I think some would argue that, whether or not, indeed, PURPA includes a Federal oversight of State process.

Mr. ELLIS. Senator, if I may add to that, I think part of the concern that State regulators have—and they have spoken to you as well, so you may know already—is that regardless of whether FERC has the authority, it appears that FERC has spoken with regard to implementation guidelines on PURPA. And out of either a knowledge that they have to follow it or a respect for the probable authority, the State regulators have tried to follow those rules. And those rules really are creating problems. So, I'm not arguing that FERC has the authority, but I am commenting that State regulators are assuming that they have enough authority to create these complications through their regulations.

Senator MCCLURE. Any other comments?

Mr. GEIST. FERC held these hearings around the United States to review the rules that they had suggested and the way States have implemented the various guidelines that FERC discussed early on in PURPA's lifetime. As a result of that, they are suggesting some of these clarifications that I think will be applauded certainly by all of us in terms of uniformity and perhaps the States as well.

Senator MCCLURE. Thank you very much, Mr. Chairman.

Senator DOMENICI. Mr. Chairman, I have been asked by Southwestern Public Service Company to submit a statement in their behalf.

The Chairman. Without objection, we will put that in the record.

Senator DOMENICI. I thank the Chairman.

[The prepared statement of the Southwestern Public Service Company follows:]

TESTIMONY OF
SOUTHWESTERN PUBLIC SERVICE COMPANY
BEFORE
THE UNITED STATES SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
February 1-2, 1988

Southwestern is a fully integrated electric utility serving approximately 350,000 customers in parts of four states, Texas, New Mexico, Oklahoma and Kansas. Approximately 28 percent of Southwestern's 1987 kWh sales were Federal Energy Regulatory Commission (FERC) jurisdictional.

Southwestern does not believe that the Independent Power Producer (IPP) competitive bidding proposal will contribute to economic efficiency of electric supply capability for the reasons discussed below. Southwestern does not fear competition, but it is our understanding that the IPP proposal will prohibit or severely restrict utility participation in future generation market supply. Southwestern vigorously opposes any increased restrictions on its ability to continue to own and operate generation plants. We are concerned that this proposal, because of legal, financial and regulatory constraints, will force short run, unreliable and higher cost solutions to the problem of providing needed generation capacity to the most technologically advanced electric power systems in the world.

The electric utility systems of the U.S. are large, carefully-engineered systems that require continual and long-term planning. In addition, rigid central control must be exercised over the dispatch and operation of these integrated generation-transmission systems at every instant, day and night, or blackouts will occur. Such blackouts have a high probability of causing severe physical damage to the electric system components as well as endangering utility and non-utility personnel safety. Proliferation of IPP supply will present very costly control problems. Location of IPPs on the system without regard to transmission line contraints, variability of generation output as the IPP responds to its needs rather than the system needs, breach of contract by IPPs as energy supply cost conditions change will likely cause serious deterioration of reliability.

The IPP proposal appears to be founded on two premises. First, regulation has become so cumbersome and rigid that it should be abandoned in favor of market economics. Secondly, generation of electric power is no longer a natural monopoly. The IPP proposal, which will restructure the industry, creates more regulatory problems through bid evaluation and solves none of the existing ones. Destruction of a system that has and continues to work well, with a few highly visible exceptions, is an ill-advised solution to problems that can be solved by realistic regulatory policy.

Many people rely on the grossly distorted results of that bungled exercise - the Public Utility Regulatory Policy Act (PURPA) to support the demise of the natural monopoly. The proliferation of QF generation caused by (1) forcing customers of utilities to pay two or more times the true avoided cost of energy, (2) unwise fuel use restrictions, (3) temporary loss of market for certain fuels, (4) extraordinary tax favoritism and, (5) irrational expectations of technological advancement forms a rather poor basis from which one concludes that generation of electricity is no longer a natural monopoly.

Southwestern is committed to supplying its customers with low cost, reliable electricity. The key element in achieving low cost is Southwestern's ability to design, build and operate generation plants. We must not be precluded from doing so.

Southwestern's internal engineering design group has designed and built Southwestern's power plants since 1945, including fourteen gas-fired units, three cogeneration plants (the first two long before PURPA) and five coal-fired units. That group has completely designed and supervised the construction of the five coal units, from the cooling tower boards to the top of the boiler in the last 15 years. Those units were brought on line in 1976, 1978, 1980, 1982 and 1985 at a total cost, including Allowance for Funds Used During Construction (AFUDC), ranging from $292/kW in 1978 to $510/kW in 1985, about one-half the national average cost for similar plants. A key to this low cost was that time to construct these base load units averaged less than 42 months. These coal plants continue to operate with an annual forced outage rate of only 1/7 of the national average forced outage rate and with an equivalent availability factor of 90%, compared with the national average of about 80% as reported by the National Electric Reliability Council. Total annual cost of production per unit from these coal plants, including capital, fuel and other O&M costs, ranged from 2.5¢/kWh to 3.6¢/kWh during the last fiscal year. Southwestern's generation plant efficiency continues to increase moving up to seventh lowest heat rate (fuel consumed per kWh generated) in the nation last year.

Southwestern has been on the leading edge of new generation technology for years. Our engineering group has done extensive analysis on alternative technologies including storage systems, wind, solar and biomass techniques. In 1979, Southwestern proposed a solar repowering of an existing 125 MW gas-fired power plant to the Department of Energy (DOE). We currently have a Circulating Fluidized Bed boiler (CFB) proposal before the DOE for its consideration as a part of its clean coal technology R&D. The proposal is to convert an existing 256 MW gas-fired plant to coal-fired CFB, the largest application of the CFB technology to date. Southwestern has actively participated in ten R&D contracts or proposals concerning new power generation technologies with ERDA, NASA, EPRI and DOE since 1976. We currently are the design architect-engineer on four 160 MW lignite-fired CFB generation units for another utility and a 600 MW pulverized coal-fired plant for still another utility.

The IPP proposal, when considered in conjunction with the Federal Power Act and the Public Utility Holding Company Act, will preclude or seriously impede Southwestern's customers' ability to continue to profit from the technological resources Southwestern has accumulated over the last 40 years. It will essentially destroy Southwestern's ability to continue to provide these efficiencies and knowledge effectively to its native load customers.

It is obvious that Southwestern has proven its ability to build economically efficient and reliable generation plants. What is not so obvious is that IPP facilities will not be as economically efficient or as reliable because of the greatly increased financial risk of an IPP. Some concern has been expressed that utilities with their "guaranteed" market are tending to avoid new generation plant investment because of the risks. An IPP is defined as an entity without market power. This means that the IPP is a pure price taker with no market protection and will be, therefore, a very much higher risk entity. The high risk will then require an old, proven technology with high variable cost and low and quick investment cost recovery, resulting in long run higher costs and greatly reduced reliability for utility customers. It is difficult to envision an IPP capable of producing power at a lower cost than Southwestern given our regulated rate of return.

It must also be recognized that the IPP proposal will create a tremendous regulatory burden on the State Commissions, multiplying state regulatory costs. The State Commission, under this proposal, will now be forced to substitute its expertise for the utilities, in order to discharge statutory obligations of assuring a reliable electric supply at fair and reasonable rates. The state must make exhaustive determinations of utility capacity need, affirm that expansion of the utility system is necessary, grant Certificates of Convenience and Necessity as well as conduct Notice of Intent proceedings, approve bidding specifications and procedures, evaluate bids, award and oversee contracts. These procedures will add one to two years to an already excessive lead time. The long lead times now are the major contributor to excessive plant costs. Lengthening that time, as this proposal must inevitably do, exacerbates an already intolerable situation. Southwestern's ability to compress its lead time to less than four years on a major base load unit is the primary reason Southwestern is not now constructing a large coal unit that was projected in 1984 to be required by 1990. Current projections do not show capacity additions necessary on Southwestern's system until about the year 2000. Stretching this lead time will greatly increase our customers' cost. It is somewhat startling to consider that this proposal will force major decisions on State Commissions who have little or no experience or accountability in these areas in an effort to correct deficiencies of utilities who are the only people with experience and accountability. A workably competitive market for economically efficient generation plants is unlikely to be attained or survive. A competitive market in a high technology, high investment area is difficult to achieve and a workably competitive market (implying economically efficient results) appears impossible in such area, e.g., defense procurement.

A major problem with the proposal is the assumption that the IPP must not be affiliated with a public utility, therefore without market power, in order to preclude self-dealing, daisy chains, etc. An IPP subsidiary or sister company of an equipment or fuel supplier presents a far greater threat to self-dealing than any regulated utility company. It is difficult to believe that "pure" market competitive pricing on equipment or fuel subcontracts will be available to all bidders and there will be no access to records to determine that bid-rigging has not occurred. There are, of course, no rules that require identical bids by a supplier to all bidders in any competitive market. Neither are there any rules that the bid receivers must adhere to in "marking up" the subcontractor's bid. It is doubtful that antitrust regulation is nearly pervasive enough to assure the desired workably competitive market.

The properly designed integrated utility generation plant and delivery systems we have today continue to be the most efficient technology and, with enhanced coordination practices, will remain so far into the future. The IPP proposal will unnecessarily complicate maintenance of the reliability of the system as it will force short run, low bidder planning. A utility, with the state commission, will face an impossible task of evaluating non-price considerations of IPP bids, since most of the information such as fuel contracts, maintenance contracts, financing, etc., will not be permitted in public domain, if a true competitive market is to exist.

The meaning of the "no significant market power" characteristic of a producer requires further analysis. A bidder may have no significant market power at the time of and for a short time after successful bid but due to changing circumstances (such as plant completion) acquire large market influence and the ability to extract prices far in excess of utility fair and reasonable rates. Will the commission rules have sufficient scope to redress such condition after several years of little or no regulatory oversight? If so, will this regulatory cloud impact financial risk considerations going in and greatly increase bid prices? Southwestern believes that regulatory flexibility must be incorporated to protect against reimposition of market power by an IPP who will not have the utility's obligation to serve. Some boundary regulation must be exercised over the financial and corporate structure and non-cost of service based pricing of IPPs.

Southwestern concurs with FERC Commissioner Stalon's September 10, 1987 testimony before the House Subcommittee on Energy and Power in which he states at page 2, ". . . time exists for debate, research and consensus building before dramatic and nonreversible actions are taken." Southwestern believes that the IPP proposal is a dramatic and perhaps nonreversible action that has not been shown to be beneficial to electricity consumers and seriously lacking in proper debate and research.

Southwestern strongly supports Chairman Hesse's intent to provide guidance on avoided costs, including some form of competitive bidding for QFs. We believe that competitive bid and negotiation in this area will provide the research and debate necessary to reasonably determine if power generation has ceased to be a natural monopoly no longer in need of regulation.

Southwestern proposes that the problems of regulation be addressed through Chairman Hesse's proposal of incentive regulation, along with the 1985 Notice of Inquiry, Docket RM85-17, concerning wholesale transactions. As the Chairman stated in her September 10, 1987 testimony before the House Subcommittee: ". . .We simply must move toward a system that provides incentives for good performance in the future instead of trying to determine who should pay for the mistakes of the past."

SOUTHWESTERN PUBLIC SERVICE COMPANY

BY Gerald J Diller

Gerald J. Diller
Manager, Rates & Regulation

Senator DOMENICI. Let me ask you all just a couple of questions. First let me give you my impression of your testimony regarding IPPs and their reliability ignoring for a moment the Public Holding Act and the level playing field concept that you have talked about.

I really don't understand at all the reliability issue that you raise. I don't think PURPA's reliability historically is even relevant. First of all, you've made a very big issue of the fact that the reason PURPA as a source has not been terribly reliable, and you questioned Senator Johnston's notion that it has been reasonably reliable. But your reason for saying that those sources are not as reliable as you would like is that you have stated, Mr. Peevey, unequivocally that the reason is that their principal business is not generally the furnishing of energy. And you gave a case example of a soap company.

But let me ask you would not the sole and single purpose for an IPP be the providing of energy? They wouldn't be in the business of soap making or anything else. So, if you are businessmen very confident of the American marketplace and the reasonableness of investment, why would reliability be any more an issue than you are reliable? You claim you are reliable. You are reliable for sure. But when you miss and make a mistake, you got a customer base. They wouldn't, you think, because they may only have 10 utility companies that they have contracts with. You make mistakes in projections.

Mr. PEEVEY. We concede that.

Senator DOMENICI. You concede that. And when you make a mistake, you've got to go back and ask for a rate increase because you overbilled or you made an error in terms of the cost.

Mr. PEEVEY. Or we're held imprudent——

Senator DOMENICI. It appears to me that this country ought to have some diversity, and there are some terrible problems out there in terms of the marketplace, in terms of regulation, in terms of availability and over-availability. I just don't believe we can sit here and fight reality, that something like IPPs are going to have a place in this marketplace. And I hope you aren't saying that you oppose that as a concept in this changing American utility market.

Mr. PEEVEY. Senator, you have asked a number of questions. Let me see if I can respond to them in varying ways.

Senator DOMENICI. Sure.

Mr. PEEVEY. First, Senator Johnston asked what the reliability has been under PURPA. That's separate from IPPs under PURPA. And I said that the results are mixed and differed depending on technologies.

Now, turning to IPPs, obviously an IPP would be built solely for providing electricity. So, on that basis it is true they wouldn't have the same potential down side as a soap company or an automobile company or what have you.

Diversity in terms of generation may very well be desirable for the United States. I think it is our fear—any of our fears—that creating IPPs, giving them an exalted status, if you will, will not increase diversity but, in fact, will narrow diversity. Instead of having—IPPs will not go into the nuclear area in my opinion or into the coal area in my opinion. What you will see a growth of gas turbines. That has other implications long-term for resource mix and reliability.

Now, let me add one final point. There is nothing in existing law or regulation that forbids the growth of IPPs. FERC has approved an IPP in the Ocean States case, and I guess just a few days ago the SEC gave permission in Thousand Springs to go ahead as IPP. In some ways it is difficult to see why we have to go further with what FERC has proposed, given the fact that one could have IPPs today.

Maybe others would like to amplify on this.

Senator DOMENICI. Well, I just wanted to—and you've answered it properly. The reliability issue is clearly not the same reliability issue as PURPA in some of your—as you've given examples.

Mr. PEEVEY. That's correct.

Senator DOMENICI. It is a different level of reliability on the negative side at the minimum.

Mr. PEEVEY. The way you have made the distinction, I agree with you.

Senator DOMENICI. Before you answer my question, let me just throw into it so you can answer it, and then it's my last one. The purpose for all this discussion, it seems to me, is twofold: the overall reliability of electricity for Americans and the ability to meet changing needs, and secondly, to effect the price as best we can so that the customers in America are getting the best possible prices. And I think that both are certainly of serious concern to us and ought to be too for you, and surely they are.

Now, we haven't talked about price very much in terms of IPPs as it might affect the customers. Can somebody just address that? Clearly there is an interest in getting the best possible price to the consumer. And an exalted position for IPPs, as you have stated it, is thought by some to be on the price benefit side for the consumer over the long run considering the current maze of the regulatory process we've got. What do you think about that, anyone or all of you?

Mr. ELLIS. Senator, I will make an attempt.

I have stated that I believe that there would be economic advantages to the proper introduction of IPPs. As Senator Johnston has suggested, obviously there are offsets. You pay a price for these economic advantages. And one of the prices may be some impact on reliability which you have asked about earlier.

But I think that we have seen competition drive prices down in so many instances. We see the introduction of new players, new financing methods, and new technologies that in many respects, so long as it is properly controlled by people who can oversee it, regulators in particular, that it may well be possible to allow in a bidding process especially price advantages to be reached with all other factors of reliability being at least met in large. But competition typically does drive prices down in so many instances that I think we would be a little bit foolish to say that it cannot in this situation. And there are those of us who have watched it happen to an extent and believe that it can, in many instances, occur.

Mr. DISBROW. Senator, on the basis of like-for-like, I don't think they can beat us except in their financing capabilities which we're precluded from. Now, they can produce a cheaper product, but cheaper products don't lend the same degree of reliability.

And if I may refer to reliability, I think there are several concepts in reliability. I think the paramount concept for my mind is operational reliability. This integrated system that we have in this Nation must operate in very careful balance. The generation load must match. And we have dispatchability of all units. We maintain area coordination and so on. The IPP has a different operational agenda than we have. Their objective is to maximize output. And unless they recognize the needs of the network, we can have serious reliability problems. Beyond whether they are supplying or not, it is how they supply.

Senator DOMENICI. Mr. Geist?

Mr. GEIST. Senator, first of all, I believe that the reason for the FERC initiative is to provide a certain degree of regulatory certainty and how an independent power producer would be treated in this new world of competitive electric generation.

Secondly, we have learned over and over again in this country that when you are an industry that is emerging from fully regulated to less regulated or more competitive, however you want to put it, to argue that we can't find better ways to do it has just been proven over and over again to be wrong. We learn something every day—all of us. And therefore, I think we are experiencing that discipline on ourselves as to how we can do things more efficiently and meet the competition.

The only thing that I think is important in this FERC initiative and its relationship to reliability is that the utility companies need to be able to be players as both judgers of those that are submitting alternate power supply options to them, whether IPP or their own, and also have the ability via whatever changes need to be made to be IPPs themselves because that is how we emerge into a more competitive world. And I think it will have ultimate benefits for our consumers.

Mr. MCCOLLAM. Senator, could I just ask one thing, Senator Domenici?

Senator DOMENICI. Indeed.

Mr. MCCOLLAM. In my opening statement I made reference to the fact that our industry feels very strongly that the host utility must maintain control over the non-price factors. And the non-price factors do, in fact, go beyond just the reliability question. We are talking about fuel diversity, for example. We have to look at fuel diversity ultimately as it does impact on reliability. We have to look also at dispatchability, the ability to dispatch a plant when it comes on the line, a scheduling of maintenance of a plant. All of these things have to be carefully integrated, and the utility must have control over those non-price factors.

There is an uneasy feeling that I detect throughout the industry that there may be such an emphasis on price that we forget some of these non-price factors. That is a genuine concern of our industry.

Mr. PEEVEY. I would just like to, if I could, just add a final—maybe not a final word, but another word to this.

I think in the end one looks at this IPP proposal and the other things FERC has talked about, and perhaps we divide on some philosophical and some practical grounds. From our perspective what FERC has talked about and what was talked about here yesterday is the first step in a process that will lead to the disintegration of the utility industry in America as we know it today. Transmission is the next one up after this. Some of the FERC Commissioners said that yesterday. And in our view the ultimate consequence of where this policy that FERC is beginning to initiate and propose today will take us is a system with lesser reliability and a system that leaves the small commercial user, the small residential user, the agricultural user paying more for less reliable electricity. I don't think that's desirable.

On top of that, it will carve out a special niche for the muni's and puts utility companies in a Catch 22 and breaks up a vertically integrated industry.

Some changes are occurring in this industry. Mr. Geist and I are in total agreement on that. They are evolutionary changes. FERC could stand by and watch these. It could be a participant. But I think before draconian steps are made in this industry, one should be very cautious and look at the bottom line of who ultimately will pay the price. In our view it will be the residential user, the agricultural user and the small commercial user.

I say that representing a company that is a very big company and a successful company. We could gain a lot I suppose individually as a company by the breakup of this industry. We have many little companies that abut us that perhaps would fare less well than we would in a far more competitive environment. We choose—we do not think it is good public policy to go down that road. We think that ultimately the Nation will be the loser.

Senator DOMENICI. Thank you, Mr. Chairman.

Senator NICKLES. Mr. Chairman, I might ask you a question before I ask one of the panelists. Would it be your thought to possibly have the Commission back up after they issue their notice of proposed rule?

The CHAIRMAN. Yes. I think another hearing on this matter is very appropriate.

Senator NICKLES. I think it would be too, and I thank you for that. I think we are talking about some significant changes.

Mr. Peevey, on that same line your company has been involved in a lot of different things. Do you see any similarities between the FERC's moves as far as open access on natural gas and some of the chaos that has evolved in that? Maybe this is in your background and maybe it is not. But do you see any similarities between their moves in the electric field and what they have done in the gas—500 and 451, 436?

Mr. PEEVEY. Frankly, I am not knowledgeable enough of their actions in the gas industry to be able to comment intelligently on that, Senator Nickles. But from what others who I respect have told me, there is fear here that any parallel to what has happened in the gas industry will introduce a certain amount of chaos in the electricity industry that is unneeded, undesirable and antithetical to the interests of all of us.

Senator NICKLES. Given the complexity of the proposals dealing with IPPs and also competitive bidding initiatives, do you see any reason for the Commission to move quickly?

Mr. Peevey. I do not. The only reason for them to wish to move quickly is because 1988 has 11 months left.

Senator Nickles. Do you think the Commission should issue a notice of inquiry before it issues the final——

Mr. Peevey. I think that the Commission ought to do many of the things that NARUC suggested yesterday in terms of expansion in time for people to make comments. Yes, I do.

Senator Nickles. Mr. McCollam, or does anybody else have any expertise as far as the gas area? Maybe that's a little extraneous, but——

Mr. McCollam. I have no expertise in it, but I have a sense that Mr. Peevey has articulated that there is a sense of uneasiness throughout the industry that some of the things that are going on in the gas industry in terms of open access might be imputed to the electric industry. And of course, you are talking about two completely different systems. If you are talking about a gas pipeline, you are talking about one line of flow where contractual line and the physical line of flow is the same.

On an electric transmission system it is quite different. You are talking about parties to a transmission transaction—the transmission transaction might affect parties that are not even parties contractually because of the inadvertent flows that occur over the transmission system. It's a complex, dynamic system that is not parallel to a gas pipeline. The analogy is just not there.

But I can tell you that there is concern in the industry that we might oversimplify this. And you are talking about a very complex system that is certainly not analogous to a gas pipeline system.

Senator Nickles. Is it your hope, Mr. McCollam, that the Commission would in this year try and make some needed adjustments to PURPA and stop there? Or would it be your hope that maybe the Commission wouldn't do anything this year or Congress would delay that and wait until after 1988?

Mr. McCollam. The position of our industry is that the first priority ought to be reforming PURPA and that is to eliminate the abuses under PURPA. If they go beyond that point, as spelled out in our policy statement and is covered in my statement, both the complete statement and opening statement, it is very important that this be a deliberative process and a process that is not rushed at the expense of looking at a very complex set of issues that might adversely affect our industry. That is our feeling without prescribing a definitive time element.

Senator Nickles. Do you think the FERC can fix PURPA administratively, or do you think it takes congressional legislative action?

Mr. McCollam. The position of our industry is that FERC should make an attempt to eliminate some of the abuses within the framework of the existing law. We feel that can be done. We would like to leave the door open, however, to legislative changes if that proves to be necessary. But at the present time, the position of the industry is that FERC should make the adjustment within the framework of the existing law.

Senator Nickles. Do you think FERC is exceeding its statutory authority as far as the proposed rule is concerned?

Mr. McCollam. That's a very difficult question to answer. There have been some questions raised about the legality of some of the proposals. But frankly, as I indicated earlier in my opening remarks, until we see the specifics of their proposal, which we have not yet seen, that's a very difficult question to answer. I think that is a question that has to be looked at very carefully, however.

Senator NICKLES. Thank you very much.

Mr. Chairman, thank you. Mr. Chairman, I have an opening statement I would like to have inserted in the record, and also a statement by the Oklahoma Corporation Commission.

The CHAIRMAN. Without objection.

[The prepared statements of Senator Nickles and the Oklahoma Corporation Commission follow:]

STATEMENT OF SENATOR DON NICKLES

OVERSIGHT HEARINGS ON FERC ELECTRICITY PROPOSAL

Mr. Chairman: It is most appropriate that you have called these oversight hearings on the proposal before the Federal Energy Regulatory Commission to change the regulatory rules affecting electricy supply. The FERC's "electricity initiative" will substantially alter who will generate electricity in the future, and the commission is to be commended for taking a bold approach to address the long-term needs of the Nation for adequate electricity supplies at the lowest possible prices.

However, the experiences of the commission's attempts to increase competition in the natural gas industry should be a lesson to us all in the need for study and patience as well as innovation. Even good ideas for increasing the free-market forces in a highly regulated industry can create serious hardships for various sectors of that industry, especially during the transition period. I hope the FERC is not going to attempt to rush into a massive regulatory shakeup without adequate opportunity for comment and study.

In that regard, I understand that the FERC is considering permitting industry only 60 days to comment on the upcoming NOPR's. Unless otherwise convinced by these hearings, I do not believe that 60 days is an adequate period to meaningfully comment on the hundreds of pages in these proposals.

Mr. Chairman, I urge you to hold additional hearings once the NOPR's are published. Proper oversight will require receiving testimony on the text of the actual proposals, especially when such sweeping changes to electricity regulation are involved.

REMARKS OF

JAMES B. TOWNSEND
CHAIRMAN
OKLAHOMA CORPORATION COMMISSION

TO THE

ENERGY AND NATURAL RESOURCES COMMITTEE
OF THE
UNITED STATES SENATE

Washington, D.C.
February 1, 1988

Remarks of James B. Townsend, Chairman
Oklahoma Corporation Commission

The Federal Energy Regulatory Commission has made a concerted effort for over a year to deregulate the interstate natural gas market by imposing a common carrier obligation on natural gas pipelines. In its wake, the Commission has left behind the Order 436 effort, a trip to Federal Court, and Order 500, Order 500A, Order 500B and Order 500C. As the FERC speedboat buzzes the shorelines of regulated industry, it has created a tidal wave of confusion among pipelines, producers, consumers and owners of natural gas. Forced "open access" has impaired contract rights, disturbed industry relationships, and distorted efforts by owners, producers and pipelines to develop manageable markets. It now appears that the Commission is determined to give the electric utility industry a voyage into the future fraught with peril even more devastating than what has occurred in the natural gas industry.

Last fall, the FERC Staff published a paper[1] expressing the Staff's view of electric utility regulation. In essence, the Staff paper asserts that the regulatory compact has failed, that generation of electricity may no longer be a natural monopoly,[2] and that electric utilities are reluctant to invest in future generating capacity,[3] thus placing consumers at the risk of inadequate future generation. After concluding that the purpose of regulation is "to protect against the abuse of market power,"[4] the paper concludes that "Independent Power Producers"[5] should be exempt from regulation under the Federal Power Act.

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[1] Regulating Independent Power Producers: A Policy Analysis, October 13, 1987, Subsequently referred to as "Staff Paper."

[2] Id., p. 7

[3] Id., p. 14

[4] Id., p. 6

In its haste to push the electric utility industry down the same channel as the FERC has forced the natural gas industry, the Commission has forgotten the many reasons why certain industries are regulated. The purpose of regulation is not simply to protect against the abuse of market power. Historically, the electric utility industry has been regulated to protect the public interest (consumers) by providing for safe, adequate, dependable and reliable power at reasonable cost, and to avoid economic waste caused by duplication of investment.[6] Regulation has permitted electric utilities to provide an essential service to the public without undue preference or discrimination, and under regulation, electric consumers minimize the risks which their utilities must bear, thus allowing the utility to operate at a lower cost of capital with accompanying lower rates to customers.

All Source Competitive Bidding sounds innocent on its face and appears to be a panacea for the difficulties currently being experienced by the electric utility industry. But this concept on the Sea of Regulation is remarkably similar to an iceberg -- we can only see one-tenth of it; the remainder is below the surface. In the Commission's docket, Regulation of Independent Power Producers,[7] the evidence conclusively establishes that for All

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[5] The FERC has now officially defined "Independent Power Producer" in an Order issued January 15, 1988, in Docket No. ER88-112-000, Orange and Rockland Utilities, Inc.

[6] Bonbright, Principles of Public Utility Rates, Ch. 1.

[7] Docket No. EL87-67-000

Source Competitive Bidding to work, all sources of electric power must have unrestricted access to the transmission network. Of what use is bid selection to a power producer if the power to be purchased cannot be transported to the buyer? Open access to the electric transmission grid, I am told, is far more complex than open access on gas pipelines. Electricity travels at the speed of light and follows the path of least resistance. Electricity is not as smart as lawyers -- it ignores "contract paths." Generation must be carefully integrated into the electric grid or the quality of service will suffer -- consumers will be the losers.

In addition to jeopardizing the quality of service to the public on the transmission network, All Source Competitive Bidding would replace the utility's service obligation with a contract obligation. That sounds all right, at first, but let's think about it. Today, utilities are obligated under the regulatory compact to continue to serve the public even without a contract. If generation is deregulated, the provider of electricity has no obligation to continue providing power when a contract expires, or, worse, if the bargain turns unfavorable during the term of the agreement. Breach of contract litigation will not light up our constituents' lights!

A third aspect of this hidden mountain of ice will be the loss of instantaneous control which electric utilities are now able to exercise over generation sources. Electricity cannot be stored as can natural gas. Generation of electricity must be instantaneously matched to the demand which we, as customers, place on the system. But independent power producers will be just like qualifying facilities under PURPA.[8] They will need and their financiers will demand maximum production from their generating facilities. It will be up to the regulated utilities to control the flow of power to accommodate independent energy production and still match total output to customer needs on a second-to-second basis. Utility-owned generation will be forced to operate less efficiently and that will cost us, as consumers, more money.

Another aspect of All Source Competitive Bidding where appearances belie reality concerns the risks associated with constructing new generation. There are two specific risks which invite your attention: economic risk and regulatory risk.

The Commission has suggested that Independent Power Producers deserve greater returns because they take demand risk.[9] NOTHING COULD BE FURTHER FROM THE TRUTH! Financing requirements for Independent Power Producers will be no different from the financing requirements of qualifying facilities under PURPA. The investment community will insist that contracts between independent generators and electric utilities contain minimum purchase obligations. Thus, take-or-pay obligations will shift all demand risk back to the utility and its customers. Fuel adjustment indexing provisions will allow the independent generator to recover its cost of fuel, so the risk of fuel cost changes will also be shifted back to the utility and its customers. It is clear to me that the economic risk of new generation will be carried in the utility ships' holds no matter who builds new generation!

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[8] Title II, Public Utility Regulatory Policies Act of 1978.
[9] Staff Paper, p. 25

Clearly, one of the goals of All Source Competitive Bidding is to address the regulatory risk faced by utilities when they build new generation. The Commission believes, as mentioned earlier, that regulation has failed because prudence reviews have caused electric utilities to be reluctant to build new generation. As Chairman of the Corporation Commission and as one of a majority of State Commissioners in this great nation, I deeply resent being condemned for the actions of a few of my colleagues. I stand on the record of my Commission for providing responsible regulation in Oklahoma. I am confident that most State Commissioners are providing responsible regulation in their jurisdictions as well. Simultaneously, however, with the exception of contracts signed under PURPA and its implementing regulations,[10] electric utilities still bear the regulatory risk that contracts executed with third parties for purchased power may not be honored in the state ratemaking arena. As a Commissioner, I have no desire to manage the companies I regulate, but I have an obligation to regulate the effect which management decisions will have on consumers. All Source Competitive Bidding does nothing to change the risk relationship which exists between electric utilities and their customers.

Finally, the assertion is made that All Source Competitive Bidding would simply add another option to the options currently available to electric utilities as they expand to meet new customer requirements. Unfortunately, this option is added at the expense of a more viable and time-tested option. Earlier, I mentioned that the Commission has now officially defined the term "Independent Power Producer."[11] That definition excludes the most experienced and most knowledgeable builder of generation, the electric utility. Who knows better than the local utility what kind of generation should be added to the utility's plant, and when and where it should be added? But the Commission has foreclosed this option, and has done so by a simple footnote. The issue of who and what can be an Independent Power Producer has been decided arbitrarily and without the opportunity to respond to a Notice of Proposed Rulemaking as we were all led to believe would happen.

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[10] 18 C.F.R. Secs. 292.101 et seq.

All Source Competitive Bidding raises several questions which must be answered before we dive into the unchartered waters of deregulation of the electric power industry.

FIRST, Does All Source Competitive Bidding solve any problems which cannot be solved by regulation?

In my mind, the answer is an emphatic NO! Those who claim utilities won't build again are ignoring the utility obligation to serve. Utilities cannot withdraw from the market simply because conditions are unfavorable. The fact is, electric utilities have contended with difficult and unpredictable conditions for the last twenty years. Coal generation has oscillated between being the best and worst possible fuel source to generate electricity. A perceived shortage of natural gas caused legislation[12] to be passed prohibiting electricity from being generated by electric

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11. Footnote 5, Supra
12. Power Plant and Industrial Fuel Use Act of 1978.

utilities using natural gas. That legislation was repealed last year, and gas-fired generation is now back in favor. Three Mile Island turned nuclear power upside down and nuclear generation has yet to recover from that event of a decade ago.[13] In this same decade, we have seen wild economic swings from double-digit inflation to periods of deflation in our economy.

All Source Competitive Bidding may be addressing problems which are behind us rather than future conditions. Power plant vendors and constructors now face an intensely competitive market, with or without competitive bidding, while the reduction in interest and inflation rates, the return of more stable load growth patterns and the repeal of the Fuel Use Act have put utilities in an excellent position to select the most economical generation mix within the traditional regulatory framework. Because utilities serve customers who do have competitive alternatives to utility service, there are already market pressures in place which will yield such a generation mix whether or not competitive bidding is adopted. Where qualifying facilities and independent power producers are truly the most economical and reliable alternatives, they will be integrated into the utility generation mix within existing laws and existing regulations.

SECOND, Will competitive bidding lower utility costs and customer rates?

I seriously doubt that this will be the case for several reasons. At the outset, independent generators will require a higher rate of return on investment than would be permitted a regulated utility. In addition, as discussed above, financiers will require minimum purchase obligations which will translate into more volatile usage patterns served by utility generation. Reduced efficiency will result in higher costs to consumers. It is possible that entrepreneurs, in an effort to be competitive and successful in the bidding process, could understate their project funding requirements. If the contract made cannot be financed, the utility may be forced to buy more expensive power until a defaulted contract can be replaced. Finally, if a contract becomes uneconomical over time, an independent producer with no utility obligation could close its plant and leave the purchasing utility and its customers in a capacity-short position. Purchasing emergency power in such a case would certainly cause an increase in electric rates to the consumer.

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[13] March 1979

THIRD, Can competition and regulation be mixed successfully?

I do not believe this can be done. Today, utilities exist in a highly regulated environment. Inject competitive bidding into this environment and it is no longer clear who is responsible for what. Regulators impose major, long-term responsibilities on utilities and nowhere is this more evident than the process whereby utilities add generating capacity to their systems. Utilities are expected to decide when they need the capacity, how much to build, the type of capacity, the fuel it will burn and to make all of the trade-offs between front-end costs of the unit and its lifetime operating costs, knowing they have the permanent responsibility to provide reliable and economical service to any and all customers who request service.

If competitive bidding prevents utilities from making these decisions and trade-offs, then we will be taking away from utilities the authority they need to meet their responsibilities. If competitive bidding shifts the responsibility for making these decisions to state commissions, I can tell you right now we are not in business to make a utility's decisions for it, nor are we equipped to do so. We expect utilities to make their own decisions and answer to us for the consequences.

If, on the other hand, competitive bidding does permit the utilities to continue to make these decisions but, in exchange, precludes them from bidding on their own projects, then utilities will eventually have to rely on generation owned by third parties. With the loss of ownership will come some loss of control over their systems, but we will still hold them responsible for the consequences even though the owners of a utility's generation are exempt from regulation and exempt from the responsibilities which regulation imposes beyond their contract commitments.

FOURTH, Who would draw the line between competition and regulation, and where would it be drawn?

I have heard statements to the effect that the proposed FERC rulemaking represents only a limited, incremental step in the evolution of utility regulation. This tells me that there are other steps to come which may become inevitable once the first step is taken. For instance, even if competitive bidding is initially limited to utilities which would otherwise build their own generation, the next step will be the argument that, since utilities are allowed to competitively bid for their power supplies, why can't utility customers also bid for their power supplies? If this argument is accepted in the name of greater competition, utilities will be confronted with unlimited retail wheeling where QF's, IPP's, and even other utilities can pick off a utility's better loads and leave the remaining customers with the responsibility for making up the lost revenues. It is difficult, if not impossible, to mix a little bit of competition in the form of competitive bidding with a regulated industry and expect the process to stop at that point. The door would then be wide open for mandatory wholesale wheeling and it is a short step from there to unrestricted retail wheeling. The electric consumer will be the loser when open transmission access is adopted. The truth is, we will all be losers. The consumer will see higher rates, a loss of reliable service and a loss of accountability.

The regulatory process has effectively balanced the interests of consumers with the need for reasonable earnings by utilities for over 75 years.[14] Americans today have the most efficient, reliable, safe and dependable electric service ever achieved anywhere in the world. This record has been achieved through responsive regulation. We should not attempt to change this system unless we have thoroughly reviewed the consequences and are satisfied that the changes result in improvement to those who count -- the Consumers.

Chairman Martha Hesse has a lot in common with Captain Smith of the Titanic, today. The major difference is that Captain Smith was unaware of the iceberg until it was too late. Chairman

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[14] The Federal Power Act was first passed on June 10, 1920.

Hesse, on the other hand, has her ship on a direct bearing for the iceberg with the electric utility industry aboard. The iceberg is All Source Competitive Bidding. On the surface, it appears to be a safe harbor; just below the surface looms disaster. Mr. Chairman, you and the Congress must assume the role of Captain Hesse's Admiral and order her to turn back before it's too late.

The **Chairman**. Senator Melcher?

Senator **Melcher**. I have no questions, Mr. Chairman.

The **Chairman**. Gentlemen, this has been an excellent panel. Thank you very much. You have been very helpful to us.

Next we have a panel consisting of Mr. Martin N. Duggan, president of Hydra-Co Enterprises of Syracuse, NY; Mr. Peter Borre, senior vice president of J. Makowski Associates of Boston; John Anderson, executive director of the Electricity Consumers Resource Council; Larry Hobart, executive director of the American Public Power Association; and Mark Cooper, energy director of the Consumer Federation of America. Let's lead off with Mr. Duggan.

STATEMENT OF MARTIN N. DUGGAN, PRESIDENT, HYDRA-CO ENTERPRISES, INC., ON BEHALF OF COGENERATION & INDEPENDENT POWER COALITION OF AMERICA, INC.

Mr. **Duggan**. Good morning and thank you.

The **Chairman**. Excuse me for interrupting.

Mr. **Duggan**. Yes, sir.

The **Chairman**. But Senator McClure and I during this testimony will have to go away for 10 or 15 minutes to get our budget approved at the Rules Committee. We'll be right back.

Mr. **Duggan**. Yes, sir.

The **Chairman**. It's very important. Please proceed, Mr. Duggan.

Mr. **Duggan**. After yesterday's hearings and this morning's I am reminded of the internal truthfulness of a statement made by Eleanor Roosevelt some 40 years ago and Fiorello LaGuardia when he was mayor of the city of New York. Mrs. Roosevelt said that the world couldn't be understood from a single perspective. I think that is just as true today as it was then, but this business that we are in cannot be understood from a single perspective.

And Fiorello LaGuardia said that a reporter has an obligation to get his facts straight before he biases them. I know I've got mine straight.

Hydra-Co is a wholly-owned, arm's length subsidiary of Niagara Mohawk which is a combination gas and electric utility that serves over a million customers in upstate New York. And I would like to publicly commend that company for having the courage and foresight to start this company seven years ago when they quite didn't understand the risk and rewards that were available to us.

But back in the fall of 1981, five of us elected to leave Niagara in order to pursue the business opportunities provided under PURPA. We have since grown to 28 employees which only two have come from the parent company. And in combination with other business partners, we have brought on line on time and within budget slightly over 150 megawatts of electric generation. We have 145 megawatts currently under construction, and we expect to bring an additional 200 megawatts under construction in 1988.

And we use fuels as diverse and as varied as water, waste wood, natural gas, waste gas, coal, biomass, and wind. Our role in the development of these projects is equally diverse from the negotiation of the various energy sales agreements—we obtain the financing and manage construction—to operating the project and handling the requisite administrative and general work. And with respect to a lot of the testimony and discussions, several of our projects involve wheeling, one of which requires wheeling through a foreign country.

I appear today on behalf of CIPCA, the Cogeneration & Independent Power Coalition of America. Our members are active participants in the electric power industry and include developers, equipment manufacturers and suppliers, fuel suppliers and companies involved in project finance. One of our members, Dow Chemical, is in terms of generation alone the 27th largest electric utility in this country. In addition, ANR Venture Management, which is a gas subsidiary, is a wholly-owned subsidiary of the Coastal Corporation. We also include CMS Cogeneration whose parent company, CMS Energy, owns Consumers Power and many other companies which have made a similar and substantial commitment to this industry.

In addition we are affiliated with the American Cogeneration Association whose over 500 members are also involved in all aspects of the cogeneration industry nationwide.

Now, the theme of my testimony I believe to be pretty straightforward. CIPCA asks for the opportunity for the independent power industry, both qualified and non-qualified, to provide needed electric generation in a manner that is cost effective, energy efficient, dependable and reliable. We developers of qualified and non-qualified facilities are required to carefully ascertain and control all of our costs, all the costs that are associated with project engineering, finance, construction, and operation. We independents must absorb all cost overruns. If our capital costs prove to be higher, or if our operating efficiencies and reliability prove to be lower than forecasted, we have to absorb the differences.

Further, as independent developers, we are required to live with our estimates and our contractual obligations despite what went on earlier today for a 15 or 20 year period. And I submit what utility is willing to make that type of an agreement with its rate payers. And I would like to point out that the rate payer is me, and the rate payer is you, and the rate payer is everybody in this room and all that we represent, not some vague or illusory group. I am a residential rate payer.

But today I want to focus on the idea that dependence on independent power will somehow result in what is called unreliable power and an unreliable power supply system because we are not subject to a statutory "obligation to serve" as are traditional or regulated utilities. As I have already indicated, the opposite is really true. If we don't serve, we don't get paid. Conversely, when a utility plant fails to produce, as we heard from Commissioners yesterday, it remains in the rate base with rate payers, in effect, providing a form of business interruption insurance.

Also, after yesterday's discussions, I believe it is important to note that the obligation to serve rests with the distribution side of the utility, not the generation side. If the utility doesn't have sufficient generation, as happened in the northeast and New England during the recent cold snap, needed capacity and energy is purchased from available supply.

Further, with respect to this aspect of reliability, we heard the chairperson of NARUC and the Michigan PUC testify that two

Michigan utilities required 18 and 19 years respectively to bring needed generation plants on line. And I question where did they get the requisite capacity and energy in the interim.

Further, with respect to the contractual obligation to serve, I believe that the competitive contracting system we are advocating, which is more fully detailed in our written comments, truly positions the purchasing utility company to better match available supply sources with its own system supply needs. Peaking capacity and energy requirements can be satisfied through utility negotiation for features such as dispatchability and the ability to curtail deliveries, provided that the purchasing utility recognizes the value of such features in the negotiation process. With respect to system reliability, projects offering the best assurance of performance can be selected by the buyer for long-term contract awards under a multi-attribute bidding system.

At this juncture, let me suggest how the system we endorse will benefit all of us as rate payers. Because payments by utilities to independent power producers are made only when electricity is delivered, purchases from us independents will shift away from us rate payers many of the costs that we have traditionally borne, cost that have resulted from utility construction which is never completed or which was completed at cost far above projected levels. At the retail level, electric utilities are generally permitted to set rates to cover their costs and earn an allowed rate of return. Thus, the only way to lower retail electric rates, aside from adjusting the allowed rate of return, is to impact the utility's generation construction costs and their fuel costs. The costs of certain power production risks and the issues of who bears those costs—the producer or the rate payer—are therefore very critical.

These two major causes of electric rate shock, construction cost overruns on utility projects and fuel cost escalation are borne by us rate payers. Under our proposal we rate payers are sheltered from the cost effects of both phenomena. Our projects must have fuel contracts in place in order to obtain financing and before the public service commission and utility commissions will approve our energy sales agreements.

We also bear the risks that inflation rates that we forecast are going to be higher than we anticipate.

But returning to my earlier point regarding reliability and efficiency, this assignment of risk to the independent power producer or to the manufacturer provides the impetus for prudent and cost effective construction and operation of independent powerplants.

Now, there are some who suggest that, yes, but you guys all pose a technological risk to this industry. And I would point out that our facilities use many of the same generation technologies as traditional utility generation plants. We use the same equipment, engineering firms and construction firms as utilities. And in this regard, I was impressed by the comments of Commissioner Lacy of Virginia yesterday who said that one of the reasons for approving Chesterfield 7 was to give Vepco the opportunity to learn how to operate a combined cycle plant in the event they had to take over a project from one of us independents.

Now, because the light is on, let me wrap up and go right to my conclusion. With respect to transmission, I feel that current transmission access is inadequate to facilitate true competitive bidding in the wholesale electric power market. It also stifles economic development.

CIPCA urges the committee to support FERC initiatives to facilitate sales to utilities outside their service territory in which the seller is located. We support and urge the Commission to adopt Commissioner Stalon's limited proposal on this point. But we are calling for a limited incremental and voluntary—not mandatory—voluntary change that would require a utility that participates in bidding and uses its transmission lines in its bid—and it can't do anything but that—to make these facilities available to all other winning bidders who can interconnect.

With respect to the Holding Company Act, we feel that investment in independent power projects is discouraged by the regulatory requirements imposed by the 1935 act. Lacking the FERC regulatory exemptions that the act confers on us qualified developers, owners of non-qualified facilities are likely to fall within the SEC's jurisdiction as holding companies under section 2 of the act.

With respect to the Federal Power Act, we submit that no statutory or public policy is served by applying cost of service ratemaking and other Federal Power Act standards to us independent power producers because despite what we have, we really possess no significant market power. We urge the committee to support and encourage the efforts of the FERC to relax the Federal Power Act regulation with regard to this category of business.

And last but not least, I think we have to truly understand the business of risk and reward. Too often we have all seen as rate payers, as former utility employees and as citizens of this country, where the regulatory agencies tend to give the residential rate payer the benefit of the reward and the shareholder the benefit of the risk. And I think with the stuff that we're talking about now, the risk taker has to share in the reward on a commensurate basis.

Thank you very much.

[The prepared statement of Mr. Duggan follows:]

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Oral Statement

On

IMPLEMENTATION OF PURPA AND INCREASED COMPETITION IN THE ELECTRIC POWER INDUSTRY

Before the

UNITED STATES SENATE
COMMITTEE ON ENERGY AND NATURAL RESOURCES

February 2, 1988

Good Morning. My name is Martin Duggan and I am President of HYDRA-CO Enterprises, Inc., a wholly-owned arms' length subsidiary of Niagara Mohawk, a combination gas and electric utility that serves over one million customers in upstate New York. HYDRA-CO was organized in the fall of 1981 when five of us elected to leave Niagara in order to pursue the business opportunities provided under PURPA. We have since grown to 28 employees, of which only two have joined from the parent company. In combination with other business partners, HYDRA-CO has brought on-line over 150 megawatts of electric generation capacity. An additional 145 megawatts are currently under construction, and we expect to bring under construction in 1988 over 200 additional megawatts. These projects range in size from one megawatt to over 100 megawatts, and use fuels as varied as water, waste wood, natural gas, waste gas, coal, biomass and wind. Our role in the development of these projects ranges from negotiation of the various energy sales agreements, obtaining financing, and managing construction, to operating the project, and handling the requisite administrative and general work.

I appear today on behalf of CIPCA, the Cogeneration and Independent Power Coalition of America, Inc. Our members are active participants in the electric power industry and include developers, equipment manufacturers and suppliers, fuel suppliers and companies involved in project finance. We are affiliated with the American Cogeneration Association, whose over 500 members are also involved in all aspects of the cogeneration industry nationwide. One of our members, Dow Chemical, is in terms of generation alone, the 27th largest electric utility in the country; ANR Venture Management, a wholly owned subsidiary of the Coastal Corporation; CMS Cogeneration, whose parent company, CMS Energy, also owns Consumers Power, and many other companies which have made similar substantial commitments to this industry.

The theme of my testimony is straightforward -- CIPCA asks for the opportunity for the independent power industry, both qualified and non-qualified, to provide needed electric generation in a manner that is cost-effective, energy efficient, dependable and reliable. Developers of QF and non-QF projects are required to carefully ascertain and control all of the costs associated with project engineering, financing, construction, and operation. We independent developers must absorb all cost overruns; if our capital costs prove to be higher or if operating efficiencies and reliability prove to be lower than we forecasted. Further, as independent developers, we are required to live with our estimates for a 15- or 20-year period. What utility is willing to make that type of agreement with its ratepayers?

Today I want to focus on the idea that dependence on independent power will somehow result in an unreliable power supply system because we are not subject to a statutory "obligation to serve," as are traditional regulated utility companies. As I have already indicated, the opposite is true. If we don't serve, we don't get paid. Conversely, when a utility plant fails to produce, it remains in the rate base, with ratepayers, in effect, providing a form of business interruption insurance. Also, after yesterday's discussion, I believe it is important to note that the obligation to serve rests with the distribution side of the utility. If the utility does not have sufficient generation-as happened in the Northeast and New England during the recent cold snap, needed capacity and energy is purchased from available supply. Further, with respect to reliability, we heard the Chairperson of NARUC and the Michigan PUC testify that two Michigan utilities required 18 and 19 years respectively to bring generation plants on line. To me that does not speak of high reliability. Finally, with respect to the impact on a system of such a large generation plant on a utility system when it goes down for planned or unplanned maintenance is acute.

THE CONTRACTUAL "OBLIGATION TO SERVE"

The competitive contracting system we are here to advocate, which is more fully detailed in our written comments, positions the purchasing utility company to better match available supply sources with its own system supply needs. Peaking capacity and energy requirements can be satisfied through utility negotiation for features such as dispatchability and the ability to curtail deliveries, provided that the purchasing utility recognizes the value of such features in the negotiation process. With respect to system reliability, projects offering the best assurances of performance can be selected by the purchasing utility company for long-term contract awards under a multi-attribute bidding system. In this regard, members of our industry have undertaken contractual obligations such as performance guarantees and surety bonds to support project performance obligations. Indeed, many qualified power projects are operating today under contracts that include these conditions and others, including provisions that allow the utility to step in and operate the project if the operator does not perform. We believe that a truly level playing field is one where all potential electric power suppliers, including regulated utility companies, are subject to the same performance requirements now imposed upon independent power producers.

COST SHIFTING THROUGH RISK SHIFTING

Now, let me suggest how the system we endorse will benefit ratepayers. Because payments by utilities to independent power producers are made only when electricity is delivered, purchases from independents will shift away from ratepayers many costs they have traditionally borne--costs that have resulted from utility construction that is never completed, or completed at costs far above projected levels. At the retail level, electric utilities are generally permitted to set rates to cover their costs and earn a return on their investment. Thus, the only way to lower retail electric rates aside from adjusting the allowed rate of return is to impact the utility's generation construction costs and their fuel costs. The costs of certain power production risks, and the issue of who bears those costs -- the producer or the ratepayer -- are, therefore, critical.

These two major causes of electric "rate shock," construction cost overruns on utility generation projects, and fuel cost escalation, are borne by ratepayers. Under our proposal, these same ratepayers are sheltered from the cost effects of both phenomena. Our projects must have fuel contracts in place in order to obtain financing, and before we can obtain approval from most state commissions, we bear the risk that the inflation rate will be higher than forecasted. Returning to my earlier point regarding reliability and efficiency, this assignment of risk to the independent power producer provides the impetus for prudent and cost-effective construction of independent power plants.

There are some who suggest that we pose a technological risk. I point out that independent power facilities use many of the same generation technologies as traditional utility generation plants. This includes QF projects, which are subject to operating and efficiency standards under PURPA. Independents, by the way, are not some fast food franchised power producers. We use the same equipment, engineering firms and construction firms as utilities. Moreover, projects that carry a high degree of technological risk will not be easily financed. Thus, independents operate with an incentive to use more traditional means of generating power. Because they do not have a regulatory security blanket, however, they also have the incentive to operate more efficiently.

CIPCA SUPPORTS FERC INITIATIVES

CIPCA supports the efforts of the FERC in encouraging competition and market-based incentives in the wholesale power market. In particular, the relaxation of requirements under the Federal Power Act for certain independent power producers, as recently proposed by the FERC staff, represents a great step towards opening up the electric generation industry to market forces. In addition, as detailed in our written comments, we support the use of fair competitive bidding mechanisms for the procurement of capacity by utilities.

Let me note a few additional points. First, the independent power industry includes companies like mine -- an electric utility subsidiary. CIPCA endorses utility efforts to participate in the competitive power market through unregulated subsidiaries. However, we recognize that major differences exist between a vertically integrated monopoly and a typical independent power producer.

These differences -- size, control of market, control of transmission, the possible use in a competitive market of ratepayer money and other differences -- mean that policymakers, like yourselves, must take certain steps to ensure a fair and truly competitive marketplace exists. Such a market cannot honestly evolve without your intervention and support.

Although specified in great detail in my written comments, let me wrap up with some of the things we believe are needed with respect to FERC approval of competitive bidding and relaxed regulation of independent power producers.

o Transmission - Current transmission access is inadequate to facilitate true competitive bidding in the wholesale electric power market in those instances where an electric utility will be bidding. CIPCA urges the Committee to support FERC initiatives to facilitate sales to utilities outside the service territory in which the seller is located. We support and urge the Commission to adopt Commissioner Stalon's limited proposal on this point. Equal access can and should be imposed as a condition of utility participation in a bidding system, with the Commission regulating the pricing of wheeling services to assure non-discriminatory access. Let me note that we are not today advocating open access at the wholesale or retail level. Rather, we are calling for a limited incremental and voluntary change that would require a utility that participates in bidding -- and uses its transmission lines in its bid -- to make those facilities available to all other winning bidders who can interconnect. Without access for other bidders, utilities will be able to bid because they can bring their power to the market, while independents will be foreclosed because they cannot get their power to the buyer.

o PUHCA - Investment in independent power projects is discouraged by the regulatory requirements imposed by the Public Utility Holding Company Act of 1935. Lacking the FERC regulatory exemption from PUHCA conferred on most QF owners, owners of non-QF independent power facilities are likely to fall within the SEC's jurisdiction as holding companies under Section 2 of PUHCA. CIPCA urges the Committee to encourage the promulgation of exemption guidelines by the SEC, under existing PUHCA statutory provisions. Further, the Committee should hold PUHCA oversight hearings concerning the statute's anticompetitive effects on independent power development.

o Federal Power Act - CIPCA submits that no statutory or public policy is served by applying cost-of-service ratemaking and other Federal Power Act standards to independent power producers that possess no significant market power. CIPCA urges the Committee to support and encourage the efforts of FERC to relax Federal Power Act regulation with regard to this category of independent producers.

o Risk bearing by regulated utility companies - Risk bearing must be more balanced -- those who take the risks also must be entitled to collect the rewards. Under any competitive bidding mechanism ultimately adopted by the FERC or state regulatory commissions, utility construction must be conditioned on the utility bearing the risks of building, and the associated costs. CIPCA urges the Committee to act in its oversight role to assure that no ratepayer funds will be at stake with respect to utility generation construction in the competitive market that will evolve under the FERC's guidance. At the same time, as a matter of fairness, we urge that if utilities are required to bear the risk that they be allowed to earn for shareholders any rewards that result.

I thank the Committee on behalf of CIPCA for its attention today. I again ask for your support and active assistance in eliminating the existing barriers to independent power development and increased competition, and providing us the opportunity to serve the electric power industry and, most importantly, the ratepayers of this nation by providing competitive electric generation alternatives.

Senator MELCHER. Thank you, Mr. Duggan.
I would now like to hear from Peter Borré.

STATEMENT OF PETER BORRÉ, SENIOR VICE PRESIDENT, J. MAKOWSKI ASSOCIATES, INC., ON BEHALF OF INDEPENDENT POWER PRODUCERS WORKING GROUP

Mr. BORRÉ. Mr. Chairman, Senator Nickles, thank you for the opportunity of testifying before this committee. It's a pleasure to be back I think.

The IPP Working Group which I am representing strongly supports the proposal before the FERC to introduce a new category of electric power supplier, the so-called IPP. We also support the proposal to sanction competitive selection procedures for the procurement of power. These and other proposals for PURPA reform have been discussed extensively. While we have not seen the fine print, as several people have pointed out, namely the NOPRs, we applaud what we understand to be the general thrust of the initiative: to introduce in a phased manner more competitive and market-responsive pricing mechanisms into the investor-owned electric power generating sector for the purpose of improved economic efficiency and consequent benefit to electricity consumers.

In our view, Mr. Chairman, this is not an exotic FERC matter. It goes to important core issues that this committee deals with repeatedly, including productivity, ability to compete in trade, energy security and consumer wellbeing.

You are receiving a number of perspectives. Let me qualify that of my group, the IPP Working Group. It includes companies managing or participating in two large-scale IPP projects now in development: the Ocean State power project in Rhode Island and the Thousand Springs project in Nevada. The group also includes manufacturers of power generating equipment, affiliates of electric and gas utilities, and architect-engineering firms and fuel suppliers.

Concerning the two IPP projects I mentioned represented in our group, Ocean State is planned as a two-unit, 500 megawatt, gas-fired, combined-cycle installation. Thousand Springs, notwithstanding Mr. Peevey, is planned as an eight-unit, 2,000 megawatt, coal-fired installation in Nevada. The first Ocean State unit is planned to be on line pretty soon, in 1990. The first Thousand Springs unit is planned for a 1994 start-up. Both projects will operate as base load facilities. They are not experimental tea kettles.

Our membership in the group has considerable business experience with the industry meeting the needs of the utility and PURPA expansion and pioneering the development of projects, the two I mentioned, that have some of the essential attributes of the IPP proposal now before the FERC.

I would like to address some of the issues that arise from these proposals. There is the threshold question which I think you heard discussed yesterday. Is the system broke? Other witnesses can provide and have provided more expert and conclusive answers. I would stress that from our perspective as business people working on projects across the country, it is clear to us that in some regions the traditional ways for adding generating capacity in the investor-owned sector, whether utility-sponsored or through PURPA QFs, qualifying facilities, are not working effectively. Today Federal and state regulators are frequently confronted with controversial and unpalatable choices in allocating between rate payers and shareholders the financial burden of failed projects and projects significantly over budget. There have been numbers in the trade press in the range of several billions of dollars of overrun and failure costs that are hanging up there and are going to pass through in one way or another.

The initiative before the FERC represents a major improvement for rate payers—read consumers—in this regard. With the introduction of more third party suppliers of generating capacity, the IPPs included, the considerable up-front risk of project development, completion and start-up is transferred to those investors and is lifted from the shoulders of rate payers, which is now the case. Given the difficulties in siting and constructing powerplants and the magnitude of capital involved, this shifting of project development risk from the captive rate payer to the entrepreneur developer is a very important innovation.

A more technical threshold concern is whether we have sufficient assessment and analysis in the area, whether this is a leap into the analytical unknown. I would note a few points. I don't share the notion that this is a leap without analysis.

First, there has been a systematic policy review under way at the FERC since the 1985 notice of inquiry in electricity. And a comprehensive record was established through last year's PURPA regional hearings and technical conferences.

Second—and I think this was noted yesterday by the state regulators you heard from—the initiative before the FERC draws upon activity already underway in the real world in some State jurisdictions, State level competitive procurement and a few IPP type ventures that are now in development.

Third, we heard from the FERC yesterday the initiative appears to be designed in a phased manner emphasizing flexibility and guidelines rather than a mandatory approach.

Finally—and this is an issue that Chairman Johnston brought up yesterday—in some parts of the country, notably New England where my firm is based, the problem of bringing on the power generation capacity required to sustain economic activity—that problem is intensifying. And a protracted period of Federal level regulatory uncertainty, paralysis by analysis—that will not help.

As an observation, Mr. Chairman, at the risk of overrunning by time, the New England Power Pool projects the annual peaks expected. The peak that was projected for the winter season 1993-1994 was achieved 3 weeks ago, 6 years early.

Turning to the merits of the two key proposals within the initiative, competitive procurement and the introduction of IPPs, we consider these logically linked. The maximum benefits of competition for the rate payers and for the utilities will materialize with broadened participation in the power generation market, including the entry of more qualified participants, IPPs, that are capable of developing projects for capacity additions.

I would like to focus first on the IPP proposal. The general approach in the regulatory definition of an IPP entity we believe should be an inclusionary one with appropriate safeguards built in leading to an integration of IPP supply with other supply options. A set-aside of market share for preferred categories of suppliers in our view is not the right way to go.

Now, I recognize there are opposing views on this issue. You've heard them yesterday and today. They are generally clustered into one of three areas. PURPA QFs should have an entitlement to some of the future capacity needs before other types of entities, such as IPPs, may participate, if ever. Or utilities, particularly when operating within their franchised service territory, should not be allowed to participate in IPP projects. And finally, reliability. Easing market entry for IPPs is going to bring into the market the fly-by-nights.

With regard to the first notion, Mr. Chairman, something along the lines of a preference for QFs, in the worst case, not as a norm, not as a rule, but in the worst case this might set aside some market share as the private patch or preserve of PURPA QFs with contrived steam loads, the so-called "steam machines, 'that are plugged into utilities at above-market avoided costs. Mr. Peevey quite properly pointed to the situation of Southern Cal Edison in this regard, a burden of $200 million in 1988. This burden on the utility rate payer has some similarity with the burden of high cost take-or-pay gas supply, which Senator Nickles I suspect is well familiar with. That burden continues to plague the natural gas industry to this day. And it is not a model that should be repeated.

Concerning utility participation in IPPs, the FERC proposal in IPPs seems to differentiate by excluding IPP utility affiliates operating within the so-called "zone of economic influence" to prevent self-dealing or abuses based on market power. Others go further and argue for utility exclusion from any IPP ventures. This is an issue that you heard about on the first panel.

We as an IPP working group quite candidly welcome the competition that would come from utility affiliate inclusion in IPP ventures. We support a flexible and inclusive definition of IPPs which does not rule out presumptively any specific category of participant. We support the inclusion of the unregulated affiliates of utilities whether in or out of their franchise service territory. But we add an important condition. Utilities should participate in IPP projects if they so elect with their shareholders' money not with their rate payers' money. The risk burden should pass from the electricity consumers to those willing to develop the projects and be investors.

Safeguards against potential self-dealing and market power abuse through utility IPP participation are in place, as I think Jerry Geist noted in the earlier panel. And these safeguards, if necessary, can be strengthened. FERC qualification of IPP ventures and FERC authority over wholesale pricing are existing control points. Furthermore, state level review of utility procurement, whether by bidding or negotiation, and state level approval of retail rates are further checks on the merits of a utility's procurement actions. Given the complexity of power generation and transmission markets, we think that the Federal and state regulatory approaches should be transactional, looking at the specifics of a proposed deal, rather than strictly definitional.

On the issue of reliability, namely the "fly-by-nights," it seems to us in the working group that IPP developers will ultimately be drawing on the same group of equipment manufacturers, engineers, fuel transporters and suppliers and financing houses for their projects, as is the case today for utility and PURPA projects. So far, so good. We think it is likely that some of these now outsiders will want to participate in IPP projects as investors. And under such circumstances to be effective competitors, these firms may accept higher levels of risk than they would today because they will have the opportunity to participate in the project as investors, as well as suppliers.

Mr. Chairman, let me pause. I am overrunning my time rather egregiously. Should I continue?

Senator **Melcher**. Mr. Borré, in fairness to the rest of the witnesses that we have today, I think we had better submit the rest of your testimony for the record.

Mr. **Borré**. Thank you, Mr. Chairman.

[The prepared statement of Mr. Borré follows:]

United States Senate

Committee on

Energy and Natural Resources

Oversight Hearing on Proposals before the Federal Energy Regulatory Commission regarding PURPA, Competitive Bidding, and Independent Power Producers

February 2, 1988

Testimony of

Peter Borre'

on behalf of the

Independent Power Producers Working Group

Thank you for the opportunity to testify before the Committee. The Independent Power Producers Working Group, which I am representing, strongly supports the proposal before the FERC to introduce a new category of electric power supplier - the Independent Power Producer, or "IPP". We also support the proposal to sanction voluntary, state-approved competitive selection procedures for the procurement of non-utility electric power. These, and other proposals for PURPA reform, have been discussed extensively at FERC's regional hearings held last year, at the FERC Technical Conferences, and were presented to the House Subcommittee on Energy and Power in September. While we have not seen the fine print of proposed rule-makings, we applaud the general thrust of the initiative, namely:

> To introduce in a phased manner more competitive and market-responsive pricing mechanisms in the investor-owned electric power generating sector, for the purpose of improved economic efficiency and consequent benefit to electricity consumers.

In our view, this initiative is not a matter of some esoteric regulatory or technical adjustment. It is an important and timely effort that goes to core issues of national significance: economic productivity, ability to compete in world trade, energy security, and consumer well-being. During these oversight hearings you are receiving testimony from a number of different perspectives. Let me qualify briefly our Working Group's interest in the topic. Our membership includes:

- Companies managing or participating in two large-scale independent power projects now in development;
- Manufacturers of power generating equipment spanning the major technologies;
- Affiliates of electric and gas utilities;
- Architect-engineering firms and fuel suppliers.

Concerning the two IPP projects now in development, Ocean State Power is planned as a two-unit, 500 MW gas-fired combined-cycle installation. Thousand Springs is planned as an eight-unit, 2,000 MW coal-fired installation in Nevada. The first Ocean State unit is planned to be on line in 1990. The first Thousand Springs unit is planned for a 1994 start-up. Both projects will operate as baseload facilities.

In summary, our membership has considerable business experience with the power generation industry, meeting the needs of utility-sponsored and PURPA capacity expansion, and pioneering the development of projects that have some of the essential features of the IPP proposal.

I would like to address briefly some of the issues that arise from the proposals before the FERC. As a threshold question, some ask whether the system is indeed "broke" to the point of needing to be fixed. Other witnesses can provide more expert and conclusive answers. I would stress, however, that as business people working on projects across the country, it is clear to us in the IPP Working Group that in some regions the traditional ways for adding generating capacity in the investor-owned sector, whether utility-sponsored or through PURPA qualifying facilities, are not working effectively. Today, Federal and State regulators are frequently confronted with controversial and unpalatable choices in allocating the financial burden of failed projects and projects significantly over budget to utility rate-payers and share-holders.

The initiative before the FERC represents a major improvement for rate-payers in this regard: with the introduction of more third-party suppliers of generating capacity, namely IPPs, the considerable "upfront" risk of project development, completion and start-up is transferred to those third-party IPP investors, and lifted from the shoulders of rate-payers. Given the difficulties in siting and constructing power plants, and the magnitude of capital involved, this shifting of project development risk from the captive rate-payer to the entrepreneur is an important and beneficial feature.

A more technical threshold concern sometimes mentioned is whether sufficient assessment and reviews have been performed, whether this initiative is a leap into the analytical unknown. I would note a few points:

First, a systematic policy review has been underway at the FERC since 1985, and a comprehensive record has been established through the regional PURPA hearings;

Second, the initiative before the FERC draws upon innovation already underway: State-level competitive procurement in some jurisdictions, and a few IPP-type ventures now in development;

Third, the initiative appears to be designed in a phased manner, emphasizing an approach of flexibility and guidelines at the outset, rather than mandatory measures;

Finally, in some parts of the country, notably New England, the problem of bringing on the power generation capacity required to sustain economic activity is intensifying. A protracted interval of Federal-level regulatory uncertainty will hurt, not help.

Turning to the merits of the two key proposals within the initiative, competitive procurement and the introduction of IPPs, we consider them logically linked: the maximum benefits of competition for the rate-payers and for the utilities will materialize with broadened participation in the power generating market - through the entry of more qualified participants, including IPPs, capable of developing projects for capacity additions which are responsive to the market's needs.

I would like to focus first on the IPP proposal. The general approach in the regulatory definition of an IPP entity should be an inclusionary one, with appropriate safeguards built in leading to an integration of IPP supply with other supply options now available to utilities. A set-aside of market share for preferred categories of suppliers is not the right path to follow.

There are opposing views on this issue, generally clustered in one of the following areas:

- PURPA qualifying facilities should have an entitlement to some of the future capacity needs, before other types of entities such as IPPs may participate (if ever);
- Utilities, particularly when operating within their franchised service territory, should not be allowed to participate in IPP-type projects;
- Easing market entry for IPPs may jeopardize the reliability of the national grid by drawing into the power generating sector "fly-by-night" operators who will patch together flimsy projects.

With regard to the first notion -- something along the lines of a preference for QFs through restricted bidding or procurement -- in the worst case this would set aside some market share as the private preserve of PURPA facilities with contrived steam loads, plugged into utilities at above-market avoided costs. The burden on the utility rate-payer in this scenario has some kinship with the burden of high-cost take-or-pay gas supply which continues to plague the natural gas industry to this day. It is not a model that should be repeated.

Concerning utility participation in IPP ventures, the FERC proposal on IPPs would differentiate on the basis of market power, excluding from IPPs utilities operating within their "zone of economic influence" to prevent self-dealing or abuses based on market power. Others go further, and argue for utility exclusion from any IPP ventures.

We as a Working Group support a flexible and inclusive definition of IPPs which does not rule out presumptively a specific category of participant. We support the inclusion as IPPs of the unregulated affiliates of utilities, whether operating inside or outside their franchised service territory. We add an important condition. Utilities should participate in IPP projects, if they so elect, with their share-holders' money, not with their rate-payers' money. The risk burden should pass from consumers to investors. And, to borrow a well-worn phrase, the playing field for all third party developers should be a level one. That is, IPPs must be allowed a fair opportunity to win.

Safeguards against potential self-dealing and market power abuse through utility IPP participation are in place, and can be strengthened as appropriate. FERC qualification of IPP ventures, and FERC authority over wholesale pricing of bulk power contracts are control points. Furthermore, State-level review of utility procurement, whether by bidding or by negotiation, and State-level approval of retail rates are further checks on the merits of a utility's procurement actions to serve its consumers. Given the complexity of the power generation and transmission markets, we think that Federal and State regulatory approaches should be "transactional", based on a review of the specifics of a proposed sale, rather than strictly definitional - ruling out a priori potential entrants.

On the issue of reliability, namely "fly-by-night" operators entering the market as IPPs, it seems clear to our

Working Group that IPP developers will be drawing upon the same population of equipment manufacturers, engineering firms, fuel transporters and suppliers, and financing houses for their projects, as is the case today for utility-sponsored and PURPA Qualifying Facility projects. We think it is likely that some of these firms will want to participate in IPP projects as investors. Under such circumstances, to be effective competitors they may accept as third party developers higher levels of risk than is now the case, because they will have the opportunity to realize higher eventual returns as investors.

Further to the reliability issue, the very structure of a third-party power sales contract creates a potent incentive for that third-party to perform: when he is not capable of meeting the contract's performance requirements, his revenues trip out. He does not have the sanctuary of an assured rate-of-return on his investment base.

Another concern occasionally expressed is that IPP projects will be highly-leveraged, and thus, financially vulnerable. In point of fact, some affiliates of electric utilities engaged in PURPA project development have gone beyond the traditional 75% debt, 25% equity mix.

Finally, it can be plausibly argued that the introduction of more third-party supply options, via the IPP proposal, will enhance a utility's operational reliability through greater diversity in supply.

As I already mentioned, the competitive procurement proposal goes hand in hand with the introduction of IPPs, and we support it. It should be noted that bidding is not the only competitive procurement technique for meeting a utility's future service needs. Arms-length negotiations are also an accepted technique. Furthermore, with a bidding procedure for complex projects there is frequently provision for negotiation of particular elements of the proposal, in Virginia Commissioner Lacey's terminology, "competitive negotiations." Finally, at the risk of stating the obvious, demand-side measures such as conservation and load management, when feasible, are as valid as any supply-side measure in fulfilling the utility's obligation to serve the consumer, and should play their full role.

Viewed in this broader perspective, we support the concept of market-based procurement mechanisms for supply and demand offerings, through competitive bidding, or through arms-length negotiations. These two procurement mechanisms reinforce one another:

- Competitive bidding establishes through market interactions an avoided cost "zone of reasonableness" that can serve as a benchmark for determinations of just-and-reasonable pricing;
- Arms-length negotiations may be appropriate for the development of more complex or technically-innovative projects involving both supply and demand technologies.

Bidding mechanisms have accumulated experience in some States; other States appear to be on the verge of putting them in place. We offer the following observations on this topic:

- Bidding should include IPPs, and also be open to utility affiliate participation, subject to careful regulatory review. Set-asides of capacity in a bidding round for favored technologies, fuels, or categories of bidders should be avoided.

- Merit selection in bid evaluation appears to be a viable approach, incorporating an assessment of price and non-price factors in reaching a procurement decision. The particulars of selection criteria and weighting factors are best worked out at the State level.

- Utilities should have latitude in determining their strategy for procuring additional supply and demand capacity, as among what is put out to bid, what is negotiated at arms-length, and what is sponsored by the utility itself.

- The authority of State commissions to implement bidding procedures may need to be reaffirmed by FERC to forestall challenges and delays.

- State commissions should have flexibility in spelling out and implementing the mechanics of bid specifications and bid evaluation procedures. Some commissions may adopt a hands-off posture, giving latitude to the sponsoring utility. Others may choose to move in more closely. In all cases, however, State commissions should involve themselves to the extent of ensuring the overall validity of the bidding event, and should be prepared to respond promptly to appeals and litigation.

There are undoubtedly many other issues that can be raised in connection with the proposals before the FERC. I would like to mention briefly two major topics linked to the initiative: transmission access and the Public Utility Holding Company Act of 1935.

Some of the discussions on transmission access have taken on the attributes of a cogeneration unit: they inevitably generate as a by-product large amounts of heat, along with some light. The transmission access topic is a complex and difficult one. Most utilities note the current impracticability of fully-open transmission access. There are, however, relatively-limited proposals such as the one proposed by FERC Commissioner Stalon in a recent speech to the National Forum for Alternative Energy Generation, and more recently to this Committee. On the other hand, some large users have taken the position that without transmission access, the benefits of competitive bidding and IPP introduction will not be realized.

In our view as a Working Group, fully-open transmission access is not at this time an essential precondition for IPP projects. In some areas cooperating utilities or access to regional pools would allow IPPs to move electricity to their intended destination. However, the basic problem is a shortage of transmission capacity. Further development of the transmission grid requires new approaches to siting, pricing and permitting. Existing incentives for utilities to build new transmission capacity are inadequate.

On the question of the Holding Company Act or '35 Act, many observers have identified this as the most formidable barrier to the emergence of a dynamic IPP sector. Some go so far as to suggest that without parallel regulatory steps by the SEC, or legislative action to amend, the FERC's IPP proposal may be inconsequential. We in the IPP Working Group have considered the issue, because some of our members have dealt individually with this in the context of securing Holding Company Act exemptions to advance their projects as IPPs.

We agree from direct real world experience that the '35 Act is indeed a formidable entry barrier. Virtually all non-utility companies are unwilling to be subjected to the detailed regulation that follows from registered holding company status. Yet few non-utility firms can become significant investors in IPP projects without being required to register. Nonetheless we do not conclude that without regulatory or legislative relief, the FERC's IPP proposal is without merit. A FERC rule-making which defines and qualifies IPP projects would be a significant advance over the status quo, and would create a regulatory record for sister agencies such as the SEC to take into account. It would set the stage for the vitally-needed next step:

> A narrow, focused Public Utility Holding Company Act amendment or exemption procedure, to draw into the power generation sector a larger number of IPP-type participants.

To conclude, we are all aware of a significant recent event in the industry, the bankruptcy filing of Public Service Company of New Hampshire. The issues of "why" and "who" will be debated at length. The proposals before the FERC are a timely effort to avoid past mistakes. With more market participants, and with vigorous procurement competition through bidding and negotiations, the focus of regulatory review will be brought forward to the early phases of project development, where there is time and latitude to shape the process.

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IPP WORKING GROUP: DESCRIPTION

Introduction

The Independent Power Producers Working Group ("IPP Working Group") is a coalition of business firms, including equipment manufacturers, architect-engineers, an electric utility and energy developers, which expect to participate in independent power ventures. The group includes developers of two of the most advanced independent power projects: the Ocean State Power project, a proposed 500 MW baseload electric generating facility to be located in Burrillville, Rhode Island; and the Thousand Springs project, a phased 2,000 MW baseload electric generation facility to be located in northeast Nevada.

FERC Initiative

The IPP Working Group supports the FERC's initiative to facilitate the introduction of more supply flexibility for electric utilities through independent power production. Specifically, the Group supports relaxed regulation of independent power sales to utilities through arm's length bargaining and merit selection systems. The IPP Working Group participated in the FERC's Technical Conference on Independent Power Production held last October.

Consumer Benefits

The IPP Working Group believes that with the emergence of IPPs consumers will benefit in a variety of ways. First, consumers should benefit from competition which leads to increased economic efficiency and exerts downward pressure on future rates. Second, because IPPs will provide additional opportunities for business entities to participate in the development or operation of new generating capacity, a diversified mix of electric power supply will be available. Third, under traditional utility regulation, risk is borne by the ratepayer; IPPs offer an opportunity to shift this risk from the ratepayer to the investor.

Objectives

IPP Working Group's objectives include:

- Reduction of regulatory and legislative barriers to IPPs under the Federal Power Act ("FPA") and the Public Utility Holding Company Act ("'35 Act"). Because IPPs by definition do not have market power, traditional cost of service regulation and the accounting and reporting obligations associated under the FPA are inappropriate. Also, potential investors in IPPs are often discouraged due to the '35 Act's burdensome requirement to register as holding companies.

- Establishment of an IPPs definition which will accommodate a wide range of prospective entrants, including electric utilities. IPPs should not be viewed as any particular type of power production or power sale, but rather as a "transactional" concept that encompasses all market-driven power generation and sales outside the confines of PURPA.
- Implementation of a flexible federal IPP policy based upon market-determined rate structures, providing IPPs with the potential to realize returns on investments commensurate with risks incurred. If given appropriate incentives, IPPs, rather than consumers, will shoulder the risks of new generating ventures.

Senator **Melcher**. Thank you.
Mr. Anderson.

STATEMENT OF JOHN A. ANDERSON, EXECUTIVE DIRECTOR, ELECTRICITY CONSUMERS RESOURCE COUNCIL

Mr. **Anderson**. Thank you, Mr. Chairman. I'm John Anderson, Executive Director of the Electricity Consumers Resource Council.

Elcon is a representative of large industrial consumers. We believe that we offer this committee a unique view. Our members are very large self and cogenerators. Yet, they are larger consumers than they are generators and they require a very large and reliable supply of electricity at very reasonable prices. While we advocate policies and positions that encourage the development of efficient cogeneration, we strongly oppose policies that increase rates to consumers.

We approach this subject with great interest. We believe strongly that technological and economic factors are going to drive change in the electric utility industry. The question is not will it change; the question is when and how.

And as a consumer advocate, Elcon compliments both this committee and the FERC for focusing attention on the important electricity issues, issues that have the potential of harming consumers and non-utility generators alike.

I have submitted a written testimony which I would like to have included in the record. That testimony is organized as follows:

First, we offer comments on the FERC proposals as we understand them today, and we will certainly comment on them in more detail later.

Second, we strongly urge the consideration of increased transmission access. Workably competitive markets where they can exist may be able to replace economic regulation. However, workably competitive markets require competition both in buying and selling.

Let me summarize our comments briefly. First, with regard to the FERC proposals.

The first proposal we understand is one that relates to the administratively determined avoided cost. Elcon believes that avoided cost provisions of PURPA, as well as the rules implementing these provisions, have worked quite well. The rules establish no rates. Rather, they place a ceiling on rates equal to the purchasing utility's avoided cost recognizing that payments in excess of the actual cost avoided would require other customers to subsidize the qualifying facility.

Actual rates paid for purchased QF power are negotiated on a case-by-case basis for large cogenerators. In nearly every instance, large cogenerators sign contracts that specify rates less than calculated avoided cost.

Certainly there are examples of utilities purchasing QF power at rates that exceed avoided cost. However, we believe these examples, first, are usually self-correcting and, second, are not creatures of PURPA. In fact, they are in violation of PURPA.

Elcon has carefully studied the avoided cost issue, and in our testimony we offer some proposals that we think should be considered when looking at these rules.

The second FERC proposal relates to competitive bidding. We expect that FERC will ask if competitive bidding can be used as a way to determine avoided cost under PURPA.

Elcon advocates competitive bidding for utility power procurement. However, we believe that extreme care must be taken to develop a nondiscriminatory competitive bidding process. Implementation of bidding may take one of several tacks. For example, we believe utilities could competitively bid power purchases from qualified facilities even if there are no changes in current laws or regulations regarding transmission access, provided that the bidding process is fair and nondiscriminatory. We believe that access to transmission certainly could help assure that that fairness is realized, although we recognize that it may be possible to formulate a fair and nondiscriminatory bidding process without access.

Due consideration should be given to reliability. Efficiency, operating and ownership standards should not be eliminated, and the utility's administratively determined avoided cost should be the ceiling both for purchases of electricity and for cost recovery from customers in the event that the utility builds rather than buys.

The availability of transmission access significantly changes market conditions. Indeed, we believe very strongly that when there is guaranteed access to multiple markets for non-utility owned generators, new generating facilities should have no fuel, efficiency, operating, technology or ownership limitations. A determination must be made on a case-by-case basis that competition will be vigorous enough to allow the reduction of existing economic regulation, however.

The third, NOPR would reduce regulation of that class of generators called independent power producers, or IPPs. As a representative of consumers, we like many aspects of the suggestions that relaxing the regulatory treatment of IPPs could help stimulate the development of more efficient generator and lower rates for customers. However, we are not at all certain that this would be the outcome. Many complex questions need to be answered. And in this particular NOPR we must reserve additional comment until we have had time to study the specific proposal as it is introduced.

The FERC proposals are very intriguing. They draw attention on increased competition. However, we believe that it is increased competition focused on ways to make non-utility generators compete more vigorously and perhaps unfairly for sales to single monopsonistic buyers.

Real competition requires competition both in buying and in selling. For competition really to work, buyers, in this case utilities, certainly should have a wide range of purchasing options. And we think they do. But sellers, non-utility generators, also must have options.

This means that transmission access must be addressed. Transmission must be addressed along with the FERC NOPRs, not at a later date.

Elcon believes strongly that steps toward increased access can increase efficiency and lower cost while protecting the reliability and integrity of the system. Quite unlike leaping a chasm, you don't have to do it all in one bound. Specifically, we recommend implementation of a procedure—and we include the specific details in our testimony—that we think will bridge the gap.

Under such a procedure, customers including cogenerators could request a wheeling order. The appropriate regulatory commission would have to make a public interest finding in accordance with applicable laws and rules of procedure. And we emphasize a public interest finding. In making such a finding, the commission can address critical issues, such as obligation to serve, length of the contract term, availability, terms and conditions of backup service, and the minimum size of the transaction.

A critical component of the procedure that we propose involves the establishment of a rebuttable presumption that the capacity to wheel exists. This would force utilities to place data into the record regarding power flows that now are unavailable from a practical standpoint.

Regulatory authorities must have the authority to order wheeling. Commissions should not assume that the status quo is necessarily optimal. Commissions should have the authority to order construction of both new transmission lines and appropriate modifications to existing lines to facilitate wheeling if the net costs associated with the requests are borne by the wheeling applicant and the utility is unable to demonstrate significant adverse impact on the system. Commissions should not order wheeling unless and until it is determined that adequate capacity and capability exists or will exist with the commencement of the transaction. Published wheeling tariffs should be cost based and nondiscriminatory, and individually negotiated arm's length contracts among the applicable parties could also be acceptable provided they meet the specified terms.

Utilities should be required to treat all entities in a nondiscriminatory way. Customers returning to the system must be treated exactly the same as other new customers. Wheeling services should be available for either part or all of the applicant's load.

Implementation of such a procedure would allow commissions to determine on a case-by-case basis where wheeling can take place without harming customers or reliability of the system. It would not allow willy-nilly shopping around. It would authorize responsible and sensible transactions to take place and provide test case data before proceeding to a mandatory common carrier status.

Thank you very much for the opportunity to appear before you today.

[The prepared statement of Mr. Anderson follows:]

STATEMENT OF THE
ELECTRICITY CONSUMERS RESOURCE COUNCIL
(ELCON)
BEFORE THE
COMMITTEE ON NATURAL RESOURCES
UNITED STATES SENATE
REGARDING POLICY CHANGES
AFFECTING NONUTILITY GENERATORS
FEBRUARY 2, 1988

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ELECTRICITY CONSUMERS RESOURCE COUNCIL

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STATEMENT OF THE
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The Electricity Consumers Resource Council (ELCON) is very pleased to have the opportunity to testify before the Senate Committee on Energy and Natural Resources on proposals presently before the Federal Energy Regulatory Commission (FERC) affecting nonutility generators.

I. INTRODUCTION

ELCON is a consumer group -- an association of large industrial consumers of electricity. Our members have facilities in most of the 50 states and many foreign countries. Our members produce a wide range of products, including steel, chemicals, industrial gases, glass, motor vehicles, textiles and food.

As a representative of large industrials, ELCON offers this Committee a unique view. Our members are very large self- and cogenerators. Indeed, one of our members generates more electricity than all but 37 investor-owned electric utilities. Yet, our members are larger consumers than they are generators. They require a very large and reliable supply of electricity at reasonable prices. While we advocate policies and positions that encourage the development of efficient cogeneration, we strongly oppose policies that increase rates to consumers.

As a consumer advocate, ELCON compliments both this Committee and the FERC for focusing attention on these important electricity issues -- issues that have the potential of harming consumers and nonutility generators alike.

Technological innovations have created a situation where many customers formerly viewed as "captive" to the utility now find themselves with viable, realistic economic options. Some of these customers are industrials. But the availability of options goes to a much larger group than what is traditionally viewed as "smoke stack" industry. It includes hospitals, universities, large commercial complexes, even fast food outlets, perhaps groups of residentials, certainly the military, and increasingly cities and counties.

Consumers with options have the ability to leave the utility system. But that is only half the equation. Not only must they be able, they must be willing.

For many years consumers were not motivated to produce electricity. Indeed, the economic signals they received were to do precisely the opposite -- to stop generating and start buying. And they did.

The problem -- or perhaps the opportunity -- is that the traditional economic signals have been reversed. Consumers are being told, through very high electricity prices, to pursue whatever options they can. This means generate electricity when and where it makes sense to do so. And they do.

Nonutility entities have explored, and are continuing to explore, both self- and cogeneration with new vigor. Self- and cogeneration can produce tremendous benefits to consumers willing and able to participate directly. But the benefits don't stop there. They also apply to consumers that can't participate directly by lowering generation costs, placing a cap on consumer rates, increasing system reliability, deferring the need for expensive, new capital additions, and transferring the risk of cost overruns and fuel fluctuations from utilities to QFs.

The basic need is to create a regulatory process that will capitalize on the benefits of this changing regulatory environment and, simultaneously, protect the consumer. We believe that is the objective of this Hearing.

II. SUMMARY AND RECOMMENDATIONS

First, we offer comments on the FERC proposals as we understand they will be introduced.

Second, we strongly urge consideration of increased transmission access. Workably competitive markets, where they can exist, may be able to replace economic regulation. However, workably competitive markets require competition both in buying and in selling.

A. The FERC Proposals

This Hearing address FERC proposals affecting nonutility generators. These proposals have been the subject of extensive general discussion and debate. However, the proposals have not been released in written form. We emphasize that our comments are based on our understanding of the FERC proposals gathered from public discussions. We will offer detailed comments on the actual proposals once they are published and analyzed.

It is our understanding that the FERC is considering notices of proposed rulemakings (NOPRs) in three areas that would do the following:

1. Clarify the avoided cost rules implementing those relevant sections of the Public Utility Regulatory Policies Act of 1978 (PURPA);
2. Provide guidelines for the use of competitive bidding systems to acquire nonutility power under PURPA; and
3. Create a new category of Independent Power Producers (IPPs) that would be subject to reduced regulation under the Federal Power Act.

Each of the FERC proposals is discussed in turn.

1. Clarify Avoided Cost Rules

The first NOPR relates to administratively determined avoided cost. It addresses problems raised regarding the implementation of avoided cost pricing under PURPA. Special attention probably will be given to allegations that some utilities are required to pay more than actual avoided costs, thus harming the utility and/or its customers.

ELCON believes that the avoided cost provisions of PURPA, as well as the rules implementing these provisions, have worked quite well.

The rules establish no rates. Rather, they place a ceiling on rates equal to the purchasing utility's avoided cost, recognizing that payments in excess of the actual costs avoided would require other customers to subsidize the qualifying facility (QF).

Actual rates paid for purchased QF power are negotiated on a case-by-case basis for large cogenerators. In nearly every instance, QFs sign contracts that specify rates less than calculated avoided costs.

Certainly, there are examples of utilities purchasing QF power at rates that exceed avoided costs. However, we believe these examples (1) usually are self-correcting and (2) are not creatures of PURPA. In fact, they are in violation of PURPA.

ELCON has carefully studied the avoided cost issue. In the body of this statement we present certain principles that we believe should be followed in establishing rates for purchases of QF power. We certainly will support FERC proposals in the NOPR that are consistent with these principles.

2. Competitive Bidding

The second NOPR is expected to ask if bidding can be used as a way to determine full avoided cost under PURPA. Several states already have implemented or are in the process of implementing bidding. Other states have looked at the possibility of using bidding, but have decided that they do not have the legal authority to implement it. FERC plans to make it very clear that the states do have the legislative authority and a basis under the FERC rules to use bidding as a way of setting full avoided costs.

FERC envisions only "voluntary" bidding. All generating sources would be allowed to compete in the bidding ("all-source" bidding). Nothing would be done to erode the states' current authorities. Indeed, the NOPR would be intended to strengthen them.

ELCON advocates competitive bidding for utility power procurement. However, we believe that extreme care must be taken to develop a nondiscriminatory competitive bidding process. Implementation of bidding may take one of several tacks. For example:

- Utilities could competitively bid power purchases from qualified facilities (QFs) even if there are no changes in current laws or regulations regarding transmission access, provided the bidding process is fair and nondiscriminatory. Under such circumstances, utilities maintain the monopsony power given them by their exclusive service territory and control over their transmission network. This monopsony power is tremendous. The monopsony power allows utilities to restrict QF sales to the host utility at the utility's discretion, whether capacity to wheel exists or not. Access to transmission certainly can help assure that fairness is realized, although ELCON recognizes that it may be possible to formulate a fair and nondiscriminatory bidding process without access.

  Due consideration should be given to reliability. Efficiency, operating, and ownership standards should not be eliminated. A utility's administratively determined avoided cost should be the ceiling both for purchases of electricity and for cost recovery from customers in the event the utility builds rather than buys.

  Such a procedure would produce favorable results. Reliable cogeneration systems would be constructed. Owners of machines that cannot satisfy reliability criteria would not have markets for their power. Customers would benefit from lower prices paid by utilities for QF power purchases. Utilities would be motivated to provide accurate avoided cost estimates because those estimates would become caps for utility expenditures if the utility decides to build.

ELCON believes strongly that the bidding process must be restricted to QFs unless nonutility generators are guaranteed access to multiple markets. A bidding process involving more than QFs and not guaranteeing access is inappropriate and legally deficient. A legal memorandum contained in Appendix C explains this point in more detail.

- The availability of transmission access significantly changes the market conditions. Indeed, ELCON believes that when there is guaranteed access to multiple markets for nonutility-owned generators, new generating facilities should have no fuel, efficiency, operating, technology or ownership limitations as long as there is guaranteed access to multiple markets for nonutility-owned generators. A determination must be made, on a case-by-case basis, that competition will be vigorous enough to allow the removal of the existing regulatory protection. We must recognize that wheeling to a utility's border may not be sufficient to provide the nonutility generator competitive protection from the monopsonistic powers of the utility.

3. Independent Power Producers

The third NOPR would reduce regulation of that class of generators called Independent Power Producers (IPPs). IPPs are defined as generators with no substantial market power. That is, they do not have a franchise service territory and do not control transmission facilities. FERC proposes to offer IPPs flexible regulatory (not cost-based) pricing. The objective is to make the pricing subject to market discipline.

As a representative of consumers, ELCON is intrigued with suggestions that relaxing the regulatory treatment of IPPs could help stimulate the development of more efficient generators and lower rates for consumers. However, we are not at all certain that this would be the outcome. Many complex questions must be answered.

For example, why would IPPs build generators more efficiently than utilities? Why would IPPs operate more efficiently than cogenerators? Why should regulation be relaxed for IPPs but not for utility generators? What assurances would be offered that cost savings would be captured by the utility and flowed through to ratepayers?

Legal questions must also be resolved. PURPA created a class of generators called QFs and specifically granted them benefits. There is no legislative parallel for IPPs. Can FERC proceed without specific legislative authority?

We must reserve further comment until we have had time to study the specific FERC proposal.

B. Increase Transmission Access

The FERC proposals are very intriguing. They do focus attention on increased competition -- albeit, competition focused on ways to make nonutility generators compete more vigorously for sales to a single, "monopsonistic" buyer.

Real competition requires competition both in buying and in selling. For competition really to work, buyers (in this case utilities) certainly should have a wide range of purchasing options. But sellers (nonutility generators) also must have options.

This means that transmission access must be addressed. Transmission must be addressed along with the FERC NOPRs, not at a later date. It can, and should, be done.

ELCON believes strongly that steps toward increased access can increase efficiency and lower costs while protecting the reliability and integrity of the system. Specifically, ELCON recommends the implementation of a procedure such as that outlined on page 11.

Under such a procedure, customers, including cogenerators, could request a wheeling order. The appropriate regulatory commission would have to make a public interest finding in accordance with applicable laws and rules of procedure. In making such a finding, the commission can address critical issues such as obligation to serve; length of the contract term; availability, terms and conditions of back-up service; and minimum size of the transaction.

A critical component of the procedure involves the establishment of a rebuttable presumption that the capability to wheel exists. This would force utilities to place data into the record regarding power flows that now are unavailable from a practical standpoint.

Regulatory authorities must have the authority to order wheeling. Commissions should not assume that the status quo necessarily is optimal. Commissions should have the authority to order the construction of both new transmission lines and appropriate modifications to existing lines to facilitate wheeling if the net costs associated with the request are borne by the wheeling applicant and the utility is unable to demonstrate significant adverse impact on the system. Commissions should not order wheeling unless and until it is determined that adequate capability and capacity exists or will exist with the commencement of the transaction. Published wheeling tariffs should be cost-based and nondiscriminatory. Individually negotiated arms-length contracts among the applicable parties would also be acceptable provided that they meet the specified terms.

Utilities would be required to treat all entities in a nondiscriminatory way. Customers returning to the system must be treated exactly the same as any other new customer. Wheeling services should be available for either part or all of the applicant's load.

Implementation of such a procedure would allow Commissions to determine, on a case-by-case basis, where wheeling can take place without harming customers or the reliability of the system. It would not allow willy-nilly shopping around. It would authorize responsible and sensible transactions to take place and provide "test-case" data before proceeding to a mandatory, common carriers.

ELCON

RECOMMENDED POLICY STATEMENT ON OBTAINING TRANSMISSION WHEELING SERVICES

WHEELING ELIGIBILITY

- Users, including cogenerators, desiring wheeling services should make a request of the appropriate regulatory commission for a public interest finding in accordance with applicable laws and rules of procedures.

- In making the public interest finding, the Commission can address such issues as:

  (1) Minimum size of the wheeled transaction
  (2) Length of the contract term
  (3) Backup Service
  (4) Obligation to Serve

THE UTILITY'S ROLE

- Nondiscriminatory treatment of all entities involved.

- Rebuttable presumption that capacity to wheel exists.

- Customers returning to the system must be treated exactly the same as any other new customer.

- Wheeling services should be available for part of an applicant's load or the total load itself.

THE COMMISSION'S ROLE

- The appropriate commission should have the authority to order wheeling.

- The public interest finding should not necessarily assume that the status quo is optimal.

- Commissions should have the authority to order the construction of both new transmission lines and appropriate modifications to existing lines to facilitate wheeling if the net costs associated with the request are borne by that wheeling applicant and the utility is unable to demonstrate significant adverse impact on the system.

- Commissions should not order wheeling unless and until it is determined that adequate capability and capacity exist or will exist with the commencement of the transaction.

- Published wheeling tariffs should be cost-based and nondiscriminatory.

- Individually negotiated arms-length contracts among the applicable parties may also be acceptable provided that they meet the terms specified above.

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III. BACKGROUND

At the turn of the century, industrials were heavily self-generators. More than 50 percent of all electricity was generated by industrials. But the utility industry gave industrials two good reasons -- technological and economic -- to get out of the generating business. Utility economies of scale allowed utilities to lower the cost of generation -- and, hence, the rates they charged for power purchases. Declining rates gave an economic signal to buy, rather than generate. The signal was very bright. By the 1970s, less than 5 percent of all electricity was generated by industrials.

Then, things changed. Inflation, interest rates, environmental concerns, antinuclear activities and, of course, skyrocketing fuel prices acted together to distort utility costs and raise rates.

The price signals sent to industrials clearly told them to reevaluate self-generation. We emphasize that the return to self-generation was not emotional -- it simply was an economic reaction to rates that either were higher than cost of service or simply out of sync with economic reality. Business pressures required industrials, and others who had options, to take them. These actions have had severe impacts on many utilities; self-generation is taking load away.

Some utilities were caught in a vicious cycle that would continue to be played out for years to come: having built too much capacity, they found their errors compounded as existing load was forced to leave the system because of the resulting rate shock. And, as existing load left, utility excess capacity and/or rates rose even higher.

Congress saw that the events of the 1970s played havoc with the traditional regulatory structure. Under this structure, utilities have total control over generating, buying and selling electricity within their service territories. In exchange, they are regulated. The compact, which worked for decades, was disrupted.

What became apparent was that in times of strongly disruptive outside forces, the compact could not hold. Neither utility planning nor regulatory oversight was a match for the technical and economic pressures forcing change in the electricity industry in the 1970s. Congress addressed these pressures in 1978 and passed the Public Utility Regulatory Policies Act (PURPA). This bill created a new class of generators -- the qualified facility (QF) -- and gave this class certain benefits.

Utilities are not only monopolies -- they are also monopsonies. They control their markets not only in terms of sales -- but also in terms of purchases. This dual role has always given utilities great bargaining power, which they have used well.

PURPA removed the utility's authority to refuse to purchase energy from QFs. PURPA requires utilities to purchase electricity from generators that meet the characteristics spelled out carefully in FERC regulations implementing the law. PURPA also requires utilities to offer nondiscriminatory back-up, standby and maintenance power, and it relieves QFs from certain specified regulatory burdens.

PURPA has worked quite well. Many QFs have been built -- more than 20 gigawatts in the United States at present. QFs have not caused reliability problems. Indeed, most QFs operate at higher capacity factors than utility generators and it is a well-accepted principle that there is higher reliability in multiplicity of sources.

IV. WHERE ARE WE HEADED?

Technological innovation and economic forces have driven the electric utility industry to change. These forces will continue to influence the structure of the industry in the future. The status quo is not a realistic option. Change will occur.

Unfortunately, the change is happening in an unplanned or unstructured way. There are several ramifications we see in this unplanned or unstructured change.

First, utilities will be severely impacted by change. Those with excess capacity will try to sell. The "haves" will see increased competition as they search for new markets and ways to reach the markets. They may attempt to have unneeded capacity deregulated and made available on a spot market. They may test the boundaries of their service territories for new customers.

Those "haves" with natural advantages will push hard to reach bigger markets. For example, Canada, with its inexpensive hydropower, and utilities like Duke Power, which have shown that they can build generators efficiently, will want to build and sell to others in distant markets.

Utilities will be required to interconnect and integrate many new nonutility generators into their grids, whether the capacity is needed or not. Increasingly, utilities will be required to provide transmission to nonutility generators. Utilities will not be able to charge "exit" fees to departing loads and they will be expected to serve loads that return, although under better-defined terms and conditions.

Customers will not be immune to the change. They, too, will be divided into haves and have-nots; however, the division is not simply between residentials and industrials. The residentials of Geneva, Illinois, are haves. Many industrials without options are have-nots. The market is continuing to drive the installation of nonutility-owned, small scale generation -- especially in areas of excess capacity -- and increasingly by non-industrial customers.

Large consumers, driven by economic forces to seek change, will be persistent and creative in their push to control electricity costs. They will do a number of things, including:

1) Push harder on regulators and legislators for changes in rules and laws to stimulate more competition.

2) Identify friends (such as municipals) who may have more immediate market flexibility and develop productive relationships with them.

3) Build power lines on their own property or perhaps even along abandoned railroad rights of way.

4) If all else fails, exercise their last resort -- something they hate to do: they will move (or threaten to move) to obtain electricity at costs that will keep them in business. This is a very expensive action for an industrial to take, for obvious reasons. But it can happen and will happen if push comes to shove. Moves such as this are desperation moves; the large consumer simply has no choice.

Regulators also will be drawn into the fray. Commissions will be forced to deal with equity issues that get stickier with each case. As an example, PUCs cannot stop customers from cogenerating, even if it means leaving so-called "stranded investments" for other customers to pay.

However, increasingly PUCs will be asked to rule that wheeling transactions, -- even if they leave similar "stranded investments"-- are "better" than cogeneration because they don't result in the construction of new generating capacity, especially in areas where excess capacity already exists.

Commissions will be forced to deal with equally sticky technical issues, such as whether the addition of a QF at a load center might not "free up" transmission capacity for other uses. A particular example that bears careful watching is the addition of 800 megawatts-- or maybe even 1,600 MW -- of Bahamian power to the Miami area. Will this reduce the north-to-south loadings sufficiently to allow substantial third-party wheeling in other areas of the state?

Commissions also may find new or newly defined federal/state jurisdiction issues. There is no doubt that FERC has jurisdiction over transactions that clearly are interstate in nature. However, we hear more and more that certain wheeling arrangements only move money, not electrons. If so, can one demonstrate that there is an interstate transaction? If not, do state PUCs have jurisdiction?

The immediate result of these changes is that the transaction costs of the confrontations, negotiations and litigation we have described will keep many lawyers happily employed for a long time.

V. THERE'S A BETTER WAY

A. Send Better Price Signals

A major effort should be made to send consumers better price signals. We should recognize, however, that this is only a start. No one can set perfect prices. Even if they could, it wouldn't produce optimum results in the electric industry unless it's done in every other market throughout the economy.

B. Give Competition a Chance to Work

What will produce better results is to give competition more room to work within the framework of regulation. We know that increasing competition will drive us toward economic efficiency. We know that the free market brings the greatest efficiency. The question is how much efficiency should be introduced and how much regulatory protection should be retained.

Competitive bidding is a step in adjusting the balance between market freedom and regulatory protection that keeps the industry in sync with changing outside forces.

ELCON members are strong supporters of competitive bidding. As consumers, they think they have a lot to gain in competitive bidding. They know the process well. They ask for bids to buy their raw materials and they compete against other companies to make bids to sell their finished products. They know it drives economic efficiency.

One of the most significant forces changing the utility industry is that over the last few years there have been some very inefficient power procurement decisions -- decisions that have been based on a variety of inefficient or inaccurate notions, such as a need to achieve economies of scale, a need for a preconceived fuel mix, or the questionable notion that electric utilities must get off oil and gas.

Competitive bidding won't tolerate inefficiencies, which is why consumers like it so much. We think it is very good for all consumers.

We must be careful, however, as bidding is implemented. If not fair and nondiscriminatory, bidding can be harmful to consumers and cogenerators.

Why are we concerned? PURPA created a new class of generators in QFs while continuing to recognize the monopsony power of utilities. In the delicate new balance, the cogenerators, the utility and the utility's customers all benefit from each other.

Our concern is that we are changing the delicate balance by adding competition at the selling end without making any offsetting change at the buying end.

There is room for improvement. At present, there is QF-to-QF competition in electricity sales to utilities, but it is an unstructured kind of competition. It is first-come, first-served competition. It can be like the lawyers' "race to the courthouse" to get your bid into the utility before others have had a chance to negotiate their own contract.

The present system gives utilities a chance to make QFs bid against each other unfairly. It is a time-consuming process to negotiate a sales contract with a utility. It can take years to complete, involving thousands of elements. And, sometimes, there are questions about the honesty and integrity of the negotiations. State commissioners certainly cannot scrutinize every detail of every contract to ensure fairness, nor should they.

Competitive bidding does away with many of these drawbacks and offers a number of its own advantages. As examples:

- o Lower prices for purchased power. Because everyone bids on a clearly defined proposal for power with clearly specified criteria, the total universe of competing cogeneration capacity and the total dollar figure to be spent on it are readily apparent.

- o A more efficient power supply. Any successful bidder would have to meet both cost and reliability standards. Inefficient generators -- either utility or nonutility -- would not be able to stand the rigors of the bidding test.

- o De-emphasis on political concerns. Utilities would focus on low price and reliability -- on getting solid contractual guarantees from bidders that the power contracted for will be available when promised, as promised -- without regard to such political or social concerns as the "appropriate" fuel mix and "desirable" environmental characteristics.

- o Transfer of risk, especially for fuel price changes. Utilities would contract for electricity at specified prices. Fuel price escalators and other fuel concerns would be specified.

- o "Better" avoided cost estimates. The avoided cost estimate should be the ceiling for both utility purchases and for a utility's own construction of generating plants. We believe that this will motivate utilities to do a better job in estimating and publishing avoided cost estimates.

Furthermore, it has been shown that competitive bidding can work in practice. We have the experiences of the states of Maine and Massachusetts as evidence. At ELCON's seminar on electricity last

October, both Commissioner Keegan from Massachusetts and Commissioner Moskovitz from Maine reported that bidding works well to ration capacity and promote the development of economically efficient cogeneration.

The often-cited but little-documented fear of contract "problems" need not materialize. Utilities will write tough, solid contracts with outside providers that stipulate how much power will be available, when it will be available, for how much and under what conditions. Utilities write complex contracts for coal; why not for electricity produced from coal? They write contracts for purchases from other IOUs across a region and from Canada; why not from IPPs?

The point is that competitive bidding can be an orderly improvement over the current way cogenerated power is sold to utilities. But what concerns the members of ELCON is that in trying to improve the process, society may lose all that it has gained.

The biggest reason for apprehension is the natural fear of large, powerful entities with carefully carved territories that say, "Trust me." Utilities want in on the bidding, and they say they'll be fair; they say they won't self-deal.

But frankly, it is difficult for customers to believe these assertions. We remember that all too often these are the same utilities that brought us $5,000-per-kilowatt plants and then emphasized over and over again that the 14-cent power coming from their plants was better for customers than the 4-cent power nonutilities were producing. They are the same utilities that brought us power plants with 60-percent capacity factors and then told us that 95-percent capacity factors on IPPs will cause a less reliable power supply.

And they are the same ones that brought us cross-class subsidies and now try to kid glove certain industrial customers with super-low rates without first trying to correct the improper price signals that are exacerbating -- if not causing -- the problem.

The notion of "letting the camel's nose in under the tent" via competitive bidding frightens consumers. It also raises a legal question. Legislation established the balance in PURPA. Can regulation change that balance? The answer is clearly "no." Regulators must respect the fact that PURPA gave qualified facilities bargaining power. Bidding legally can't take that bargaining power away.

Economic theory says that increasing the number of sellers in a market while maintaining the status of a monopsonist increases the ability of the monopsonist to exploit. This has been shown in single-employer company towns, where increasing the competition between sellers may actually leave the town worse off.

Fortunately, there is a way to bring change without upsetting the balance. It draws on the lessons learned in the ongoing state experiences. It implements what state regulators have been saying for some time. It takes only a small modification to FERC's proposal.

First, bidding should be limited to QFs unless all the bidders are given guaranteed access to multiple markets. Without an increase in the number of buyers, there should be no appreciable increase in the number of sellers (except, of course, those new entrants willing to compete under PURPA as it now stands).

And all bidding, whether it involves QFs or a larger universe of power providers, must be fair and nondiscriminatory. There are ways to ensure that this happens. Certainly, transmission access is one way. However, a well-structured bidding process would also do it. The process should include an advance notice of the request for bids with clearly detailed criteria, it should provide sufficient time for bids to be prepared, it should be done in a completely open, nondiscriminatory manner, and it should provide for PUC oversight.

This bidding process will not exclude IPPs. However, they will be included along with other sources of generation rather than directly in the bidding process.

The ceiling on bids should continue to be the calculated avoided cost of the utility. And that avoided cost should be the ceiling not only for QF or independently produced power, but for all sources of power -- the utility's own construction projects, utility-affiliated power, Canadian-Bahamian-Mexican power, federal marketing administration power, co-op power, muni power, other public power and other IOU power, to name just a few of the possible sources.

These are all sources of electrons; no one's electrons are better than any one else's. The ones that should be used are the ones that cost the least, all else equal.

What we are saying is that we believe that it would be inappropriate and legally deficient to implement all-source competitive bidding without access to transmission.

It would be inappropriate because it would upset the careful balance created by PURPA between maintaining the monopsony power granted utilities by their exclusive service territories and encouraging the development of efficient, nonutility-owned generation. It would be legally deficient because it would create a harmful, anticompetitive condition.

More specifically, the FERC is obligated by the Federal Power Act to "maintain" competition to the maximum extent possible consistent with the public interest.[1] Additionally, it is well established that FERC's regulatory power over electric utilities "clearly carries with it the responsibility to consider, in appropriate circumstances, the anticompetitive effects of regulated aspects on interstate utility operations...."[2] Given the potentially discriminatory and anticompetitive consequences of a competitive bidding program, the Commission is not only fully empowered but obligated to condition the voluntary implementation of such a program on the participating utility's agreement to offer wheeling to all generators -- notably, the QFs and IPPs who are unsuccessful bidders -- on a nondiscriminatory basis. The most relevant precedent here, of course, is the recent D.C. Circuit Court of Appeals decision regarding FERC Order No. 436.[3] Although the court ultimately vacated and remanded Order No. 436 on other grounds, it upheld the nondiscriminatory access

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1 Otter Tail Power Co. v. U.S., U.S. 366, 374 (1973).

[2] Gulf States Utilities Co. v. FPC, 411 U.S. 747, 758-59 (1973)

[3] Associated Gas Distributors v. FERC, ________ F. 2nd ______ (D.C. Circuit No. 85-1811) (June 23, 1987).

condition as a reasonable and appropriate exercise of the Commission's authority to prevent undue discrimination.

ELCON submits that parallel findings to those underlying Order No. 436 exist with equal force here. First, electric utilities clearly have and are continuing to exert monopoly power over nonutility generators of electricity who lack transmission access. Second, the impact of this monopoly power is to deny potential sellers of electric power access to the market and thereby deprive consumers of the benefits of a competitive electric generation market. To the extent competitive bidding will perpetuate and, more likely, exacerbate this discriminatory situation, its voluntary use must be conditioned upon the utility's willingness to provide wheeling and, thereby, access to the electric power market.

A competitive bidding program, alone, utterly fails to address the monopsony market power that utilities have over transmission, and fails to recognize the studied reluctance of utilities to wheel for QFs, which has led to market distortions and resulting inefficiencies. Thus, only by conditioning bidding systems upon an agreement by participating utilities to engage in conduct truly reflective of a free market can FERC's competitive bid guidelines pass muster.

These legal arguments are set forth in more detail in the legal memorandum which is attached to these comments as Appendix C.

The issue is not the goal, but the method. Where do we factor all of these nonutility generators into the process? Do we do it above or below the avoided cost calculation?

ELCON in no way criticizes all-source competitive bidding. We think it makes a lot of sense. And we think it should be pursued.

However, real-life experience shows that bidding can produce widely varying results, depending on how it is implemented. Only where there is true competition can economic efficiencies be achieved. We think FERC should proceed to implement all-source bidding, but it must be conditioned on true competition. The states have shown the way.

We can see the day when utilities purchase electricity the same way they purchase fuels today. They will make potential suppliers compete. They will negotiate contracts specifying the terms and conditions under which they will receive and pay for power. But for this to work, nonutility generators must have options, as fuel suppliers now do. Otherwise, utilities will exploit their monopsony powers and deal with their affiliates.

C. Continue to Rely on Appropriately Determined Avoided Cost Ceilings

Exclusive service territories give utilities unique and potent power over cogenerators. They are monopolists by refusing to wheel backup, maintenance or standby power from other sources, and they are monopsonists when they refuse to wheel the cogenerator's power to other prospective buyers.

Congress recognized the monopsony and monopoly powers granted to utilities by the governmentally guaranteed service territory. With PURPA, Congress tried to protect QFs from these monopoly and monopsony powers without upsetting the service territory.

PURPA requires utilities either to buy all the energy produced by a cogenerator or wheel the energy to a distant utility. The choice is strictly controlled by the utility. _De facto_, wheeling is not a viable option because utilities do not agree to wheel.

The cogenerator has no influence over the utility's decision. Neither does the cogenerator have any option or recourse if the utility makes a decision that is harmful to the cogenerator. PURPA thus changes neither the monopsony nor the monopoly status of the utility.

The avoided cost provisions of PURPA, and the rules implementing these provisions of the act, have worked well. Neither the rules nor the act mandate any rate for purchase. Rather, they place a _ceiling_ on rates equal to the purchasing utility's avoided cost, recognizing that payments in excess of the actual costs avoided would require other customers to subsidize the cogenerator.

Actual rates paid for purchased QF power are negotiated on a case-by-case basis for large cogenerators. Utilities and cogenerators negotiate contracts at arm's length taking into consideration the length of the contract, termination procedure penalties for non-compliance, the ability to dispatch, timing of schedule outages, etc. In nearly every instance, large QFs are paid less than avoided costs.

This point was documented in a recent study prepared for the U.S. Department of Energy.[4] Specifically, this report states:

> Most large QFs must negotiate rates somewhat below full avoided cost to obtain concessions for the utility in certain contractual matters not guaranteed under Section 210 (e.g., levelized payment, long-term contracts, etc.) but which are frequently necessary to obtain project financing. For example, in 1982, the Southern California Edison Company (SEC) testified that the average purchase for rate contracts it had negotiated with 60 QFs for over 1000 MW of capacity, was 93 percent of full avoided cost. The full avoided cost rate, SEC noted, was appropriate and paid for projects involving "emerging technologies" (i.e., solar, wind, and geothermal). Similarly, Houston Lighting and Power Company has signed contracts for over 500 MW of cogeneration capacity at rates reportedly below its full avoided costs. As noted below, Maine utilities have negotiated over 150 MW of QF contracts under a quasi-competitive bidding scheme at rates below avoided costs as calculated under applicable state regulation. Similar purchase agreements at rates below avoided costs have been negotiated by a number of other utilities in other jurisdictions.

There certainly are examples of utilities purchasing QF power at rates that exceed avoided costs. These examples include purchases from "standard offers" (such as in California and Idaho), and from state-legislated rates (such as New York's 6 cents/KWH law).

However, these examples (1) often are self-correcting and (2) are not the creatures of PURPA. Regarding the former, the regulatory commissions of California and Idaho recently reconsidered earlier orders. They now require substantially lower payments for the purchase of QF power.

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[4] Pfeffer, Lindsay and Associates, Emerging Policy Issues in PURPA Implementation, a report prepared for the U.S. Department of Energy, Contract No. PEACOI-83-PE-70404, March 1986, page 5.37.

Specifically, several years ago the Idaho Public Utilities Commission ordered Idaho Power Company to pay more than 70 mills/KWH for purchased cogeneration and small power production (C & SPP) power. This price signal was very attractive to prospective C & SPP developers. Idaho Power signed for approximately 55 MW -- or 2-3 percent of its total load. Other C & SPP developers indicated that another 200 MW may be installed.

Idaho Power took several steps to have the rate adjusted downward. The Commission responded. First, the Commission issued an interim order in 1985, lowering the rate to approximately 40 mills. Second, the Commission issued a final order setting the rate at 20-48 mills, depending upon the date signed and the duration of the contract.[5]

Of more importance, not only are above-avoided-cost rates not created by PURPA, they are in violation of PURPA. This act specifies that avoided cost is the ceiling for rates for purchase of QF power. Individual state regulatory commissions balance the needs and desires of their citizens and utilities in implementing the PURPA provisions in their states. PURPA has not caused above-avoided-cost rates, and changes in the federal law will not remedy the situation. Proper state implementation is the key.

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[5] Idaho Public Utilities Commission, "In the Matter of Application of Idaho Power Company for New Cogeneration/Small Power Production Rates," Case No. V-1006-248, Order No. 20402, April 18, 1986, p. 23.

ELCON carefully studied the avoided cost issue. We proposed several years ago that certain principles be followed in establishing rates for purchases of cogenerated power. Specifically:[6]

- o Contracts setting forth pricing structures for avoided energy and capacity purchases should allow arm's length negotiations between the utility and a cogenerator.
- o All cogenerators selling non-firm energy at one point in time to a utility should receive a payment based on the same methodology for calculating avoided energy costs. The actual payment to individual cogenerators could be different due to differences in delivery characteristics, etc.
- o Capacity payments for purchases of non-firm power are warranted if the utility avoids capacity costs. Payments for purchases of non-firm cogenerated power should be for energy only if it is demonstrated that the purchases do not allow the utility to avoid capacity costs.
- o Purchases of cogenerated energy should include payments for avoided fuel, variable operating and maintenance expenses, start-up and shutdown expenses and energy losses that are avoided because of the purchase of cogenerated power.
- o Capacity payment should be made for purchases of firm power.
- o If a performance standard is imposed by a utility on a cogenerator, the standard should be no more stringent than the performance of the utility's units.
- o The method selected to calculate avoided costs should be rigorous and must be carefully monitored to be certain that it is producing resonable estimates.

We believe these principles are as applicable today as they were then.

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[6] Issues Facing Industrial Cogenerators, Electricity Consumers Resource Council (ELCON), Washington, DC, February 1984, pp. 12-15.

VI. CONCLUSION

The electric utility industry is changing. It is becoming more competitive. ELCON's views on the future of the electric utility industry are contained in Appendix B. Based on these thoughts, we believe strongly that relevant questions should focus not on whether it will become more competitive -- but on when and how the competition will be introduced.

This does not mean that the industry will be deregulated. Indeed it won't, and it shouldn't be.

It does mean that competitive forces can and should replace certain aspects of administrative regulation where competition can and does exist.

One such area involves power procurement. There presently are many utility-owned generators providing power to the grid. Additionally, however, there are many nonutility-owned generators providing very reliable supplies of power at locations geographically dispersed throughout the grid.

Economic and technological forces convince us that new nonutility-owned generators -- perhaps many of them will be added in the future. This will increase the competitiveness of the industry. It will add capacity, often precisely where it is least needed. It will leave so-called "stranded investments." And it will force regulators, charged with balancing the needs of consumers with utilities, to review and renew policies over many aspects of the electric utility industry.

Many PUCs already have been confronted with proposals that dramatically increase the competitiveness of certain aspects of the electric industry. They have taken the challenge and carefully carried out real life experiments that prove that competition can work. Maine and Massachusetts bidding and Texas wheeling experiments come vividly to mind.

Walking down the competitive path can -- and should -- involve careful, reasonable and reasoned steps. Moving to a fully competitive market is not like jumping a chasm, you don't have to take it all in; one bound.

ELCON believes strongly that steps toward increased access can be taken while protecting the reliability and integrity of the system. Specifically, ELCON recommends the implementation of a procedure such as that outlined on page 11.

Under such a procedure, customers, including cogenerators, could request a wheeling order. The appropriate regulatory commission would have to make a public interest finding in accordance with applicable laws and rules of procedure. In making such a finding, the commission could address critical issues such as obligation to serve; length of the contract term; availability, terms and conditions of back-up service; and minimum size of the transaction.

A critical component of the procedure involves the establishment of a rebuttable presumption that the capability wheel exists. This would force utilities to place data into the record regarding power flows that now are unavailable from a practical standpoint.

Regulatory authorities would have the authority to order wheeling. Commissions would not assume that the status quo necessarily is optimal. Commissions would have the authority to order the construction of both new transmission lines and appropriate modifications to existing lines to facilitate wheeling if the net costs associated with the request are borne by the wheeling applicant and the utility is unable to demonstrate significant adverse impact on the system. Commissions would not order wheeling unless and until it is determined that adequate capability and capacity exists or will exist with the commencement of the transaction. Published wheeling tariffs would be cost-based and nondiscriminatory. Individually negotiated arms-length contracts among the applicable parties would also be acceptable provided that they meet the specified terms.

Utilities would be required to treat all entities in a nondiscriminatory way. Customers returning to the system would be treated exactly the same as any other new customer. Wheeling services would be available for either part or all of the applicant's load.

Implementation of such a procedure would allow commissions to determine, on a case-by-case basis, where wheeling can take place without harming customers or the reliability of the system. It would not allow willy-nilly shopping around. It would authorize responsible and sensible transactions to take place and provide "test-case" data before proceeding to a system of mandatory, common carriers.

We do urge reliance on competitive bidding in power procurement. Nonutility-owned cogeneration is here, and will grow. It is not subversive. It does give consumers freedom from noncompetitive utility rates and cross-class subsidies. It should be controlled by the cost of alternative power sources.

In the larger picture, we believe that access is the ultimate question. It is a question that must be dealt with before we can have a truly efficient electricity system. We never can have a truly competitive, nondiscriminatory bidding system without access. We look forward to working with this Committee as we move toward this longer term solution.

Appendix A

ORGANIZED:

January 15, 1976

STRUCTURE:

Association of industrial users of electricity.

PURPOSE:

Promote the development and adoption of coordinated, rational and consistent federal, state and local policies which will assure an adequate, reliable and efficient electricity supply for all users at prices based on the costs incurred in serving customers.

FUNDAMENTAL PRINCIPLES:

- Electric utility rates should be based on the cost of service;
- Adequate short-term reliability and long-term availability of electricity must be assured;
- Continuing, adequate and reasonably priced fuel sources for generating electricity are important for economic viability, development and growth;
- Electric utility costs should reflect efficient and well-managed utility operations;
- Electric utilities should have the opportunity to earn a fair rate of return in order to be able to meet current and future capital needs; and
- Federal and state regulatory processes should be responsible and timely.

ACTIVITIES:

- Represent industrial viewpoints in a constructive dialogue among all electricity users, suppliers, regulators, and state and federal government bodies in a factual, objective manner;
- Promote awareness of why electricity costs have increased and possible ways to contain costs; and
- Build an objective data base which identifies current and anticipated electricity problems and suggests practical solutions to these problems.

ELCON

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Appendix B

Electricity's Future

A Special Report by the
Electricity Consumers Resource Council

July 1987

ELCON
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Electricity's Future

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THE EVOLVING ELECTRIC UTILITY INDUSTRY

Factors Forcing Change

The electric utility industry today is quite different from its past. It will become much more competitive in the future.

For much of this century, the electric utility industry was characterized by a very healthy business environment: stable prices, low interest rates, economical fuel and efficient construction programs. These factors, combined with increased engineering efficiencies and enhanced transmission and distribution networks, drove unit electricity costs downward.

Customers respond to price signals. For nearly three quarters of a century the price signal customers received was to get out of the generating business and purchase power from their host utility. And they did. Industrials became electrified. They reduced their generation from more than 50 percent to less than five percent of the total between 1900 and the early 1970s.

The environment changed about 1970 when interest rates, inflation, fuel costs, environmental concerns and anti-nuclear activism all began rising, some of them dramatically. Combined, these ominous developments led to rate shock caused by rapidly rising electricity costs. Additionally, industrial electricity rates rose far faster than utility costs or residential rates. This was because many regulators tried to shield residential consumers from rate shock using a variety of techniques. Some implemented lifeline rates. Others authorized the use of nontraditional cost allocation methodologies. Still others approved new, "innovative" rate designs and structures.

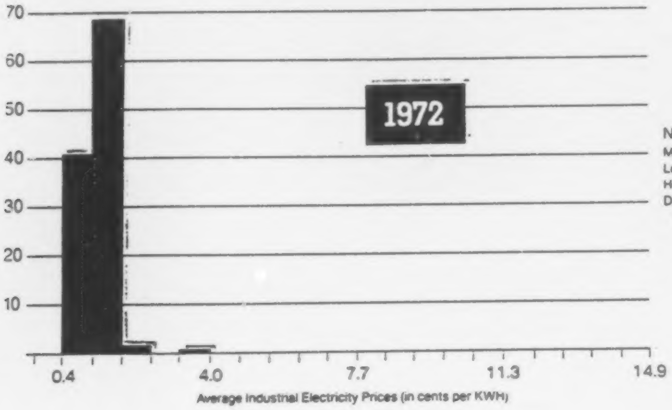
While the aggregate increase was substantial, it is important to note that the cost increases also differed substantially among utility systems. Indeed, the difference between the highest and lowest average industrial price in 1972 was approximately 3¢/KWH; in 1984 it was 12¢/KWH. Figure 1 illustrates these data.

Price increases reduce consumption. Electricity rate shock produced dramatic results. Demand growth rates fell every year from 1974 to the present. Falling demand projections and the completion of previously committed construction led to excess utility capacity. Indeed, today the U.S. literally is awash with capacity. It will be for quite some time.

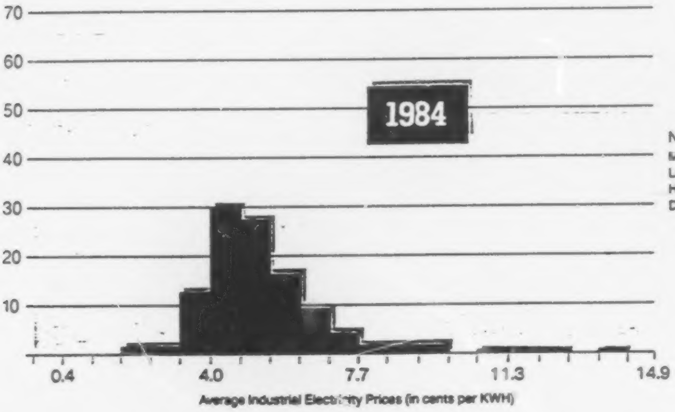
New Rate Designs and Regulatory Procedures

The regulatory response to rate shock caused by excess capacity was to use new rate designs and structures. Regulators began requiring phase-in of new generating units. Many commissions realized that traditional methodologies front-end-load capital cost recovery, thus exacerbating an already-difficult situation. Some increased their use of prudency reviews. They recognized that prudently incurred costs should be recovered from ratepayers. However, they also recognized that approving a construction program at an initial stage does not mean that all expenditures following the approval are prudent. Indeed, a prudent decision to build should in some instances be followed by an equally prudent decision to cancel — even if the utility does not decide to stop construction. Other commissions began reevaluating their used-and-useful rules and regulations. They recognized that excess capacity may be used, but not useful. Still other commissions reviewed the operating performance of utilities — or of individual generators of utilities — and decided that performance standards, and associated performance rewards, are

The Range and Distribution of Average Industrial Electricity Prices



Number of Utilities: 112
Mean Value . . . . 1.3¢/KWH
Lowest Value . . . . 0.5¢/KWH
Highest Value . . . . 3.5¢/KWH
Difference (highest less lowest) . . . . 3¢/KWH



Number of Utilities: 112
Mean Value . . . . 5.3¢/KWH
Lowest Value . . . . 2.1¢/KWH
Highest Value . . . . . . 14.0¢/KWH
Difference (highest less lowest) . . . . . . 11.9¢/KWH

NOTE: Average industrial electricity price is calculated by dividing the total revenue from industrial customers by the total KWH sales to industrial customers.

justified. And some commissions saw the negative impacts resulting from cross-class subsidies and took significant steps to remove them.

Regulators also began to grapple with basic structural changes in the electric utility industry. They recognized that no longer was there a single provider of electric energy and power. Rather, distant utilities now competed with many nonutility entities, as well as with each other.

Some regulators cautiously encouraged increased competition with experiments and limited orders. For example, the Federal Energy Regulatory Commission conducted a two-year, bulk power experiment in the Southwest. The purpose was to see if relaxed rate and regulatory oversight would encourage increased bulk power sales among interconnected utilities. The FERC recently approved a second experiment, the Western Systems Power Pool, again purportedly to observe first-hand the results of competitive interactions.

Additionally, individual state commissions are providing strong encouragement to utilities to test in new ways what used to be considered a monopolistic market. Some are approving flexible pricing arrangements to sustain or attract customer loads. Others seek to price power based on an estimated "value" to the customer rather than costs of the utility. Some are encouraging (or even requiring) bidding for purchases of nonutility-generated power. Others are asking, in essence, why power purchases among some utilities are sole-sourced rather than competitively bid.

Even stronger state commission actions are being taken. Both Pennsylvania and Iowa disallowed from rate base portions of capacity deemed excess and thus prohibited cost recovery for those portions from ratepayers. However, they allowed the owners of the capacity to keep the revenues they derived from the sale of energy from the units.

Utilities Experiment With Competition, Restructuring

Individual utilities reassessed the financial and regulatory environment and began advocating departures — some radical — from traditional regulation. For example, many utilities increased their bulk power purchases both to lower energy costs and avoid new construction. Some sought contracts with nonutility generators as long-term sources of power. Others expressed a strong interest in adding new capacity only as unregulated qualified cogeneration facilities, rather than as regulated generation included in rate base. Still others recognized that small scale, short lead-time generators could be added to the generation base in more easily digestible increments and produce power at reasonable costs.

Recent developments highlight the fact that the trend toward an increased competitive structure is continuing. For several years, utilities have created generating company subsidiaries to construct or acquire capacity for resale to their sister local distribution companies (LDCs). New England Electric System and Middle South Utilities are examples of this approach. Independent generating companies have been created to sell power at wholesale to unaffiliated utilities. The Alamito generating company is an example. Joint venture companies (such as the Yankee Atomic) or tenancy in common ventures (such as Four Corners) also have been established to provide power for the owners.

Even more recently, utilities have proposed major restructuring. Some are merging into larger, vertically integrated, regulated utilities, while others, primarily in response to pressures stemming from excess capacity, are proposing divestiture of assets. For example, Commonwealth Edison has proposed holding three new nuclear units out of rate base for at least five years. These units would be placed in an unregulated subsidiary that could sell power either to Commonwealth or to other prospective buyers. Public Service of New Mexico went even further. Faced with reserve margins in excess of 50 percent, Public Service proposed dividing the utility into pieces — a generating company (GENCO) and a distribution company (DISCO). The DISCO initially would obtain its necessary power from the sister GENCO, but over time the required purchases would be reduced and the DISCO could shop for power from other available sources.

onsumers Begin xercising Options

Customers also are exercising options that increase the competitiveness of the industry. Some are reevaluating their self-generation and cogeneration potential. What they are finding is truly amazing. Improvements in technology make small-scale generators efficient both from an engineering and an economic standpoint. These technological advances, coupled with substantially reduced oil and gas prices and high electric retail rates, make the economics of industrial and commercial generation increasingly attractive. The same factors also make governmental entities — from military bases to hospitals — seriously explore cogeneration and other cost-reduction options. When solid waste disposal problems are layered on top of these factors, municipalities find that garbage burners look better and better.

Economic forces are driving both retail and wholesale customers to seek purchased power supplies beyond their host utility. Some are successful. Others are not — yet. The city of Geneva, Illinois, recently negotiated a contract that allows it to purchase power from Wisconsin Electric Power. The military tried to implement competitive bidding for power supplies when options are available on the basis that current law, not to mention common sense, requires it to do so when bases geographically front more than one utility. And industrial customers increasingly question why they can't purchase available, lower-cost power from distant sources when their host utility refuses to do so. Industrial customers also find that they can "economically dispatch" their production at multiple locations, thus capturing the benefits of low-cost electricity when available. On a longer-term basis they can shut down plants and open new ones at other locations — either in different utility service areas or in foreign countries.

STRATEGIC GOALS

The changes described above clearly indicate that the electric utility industry is evolving into one with a more competitive atmosphere. The direction of the evolution, however, is unclear. ELCON urges consideration of the following strategic goals to help focus both the direction and the magnitude of the evolutionary process.

Competition Should Be Promoted Wherever Possible

Our country's capitalistic economy is based on the assumption that competitive markets set prices and allocate resources optimally. Competition between customers drives the price of the most wanted goods up. Higher prices (1) motivate manufacturers to produce more and (2) provide them the ability to purchase the resources necessary to increase production. Competition drives efficiency. Inefficient producers are driven out of the market by more efficient ones.

A utility's exclusive service territory grants it both monopoly (single seller) and monopsony (single buyer) powers. Economic regulation was instituted to protect utility customers from possible monopoly and monopsony exploitation.

Economic regulation of natural monopolies is based on the premise that competition cannot protect customers. This premise is correct for certain utility operations — certainly the transmission and distribution networks where costs do not allow duplicative facilities. Where competition cannot work, effective regulation is required.

However, certain areas of utility operations today can be (and have been) subjected to healthy doses of competition. This is particularly true in generation, where large numbers of relatively small-scale generators owned by many utility and non-utility entities can compete.

This does not mean that we can, or should, deregulate the industry. ELCON does not advocate total deregulation of the electric utility industry. In fact, we believe that we should avoid the use of the term "deregulate" for it triggers emotional responses and hinders constructive dialogue.

ELCON does advocate increased competition. The degree of regulation should reflect and respond to the degree of competition.

Utilities Should Operate Efficiently and with Good Business Practices

Utilities should provide electric service at "least cost." We define "least cost" as the minimization of the revenue requirement over the long run consistent with an adequate and reliable electricity supply.

Supply decisions should not be driven by preconceived opinions about technology, fuel type or ownership characteristics. Electricity prices should be based on cost of service and should not unduly discriminate between customers or customer classes. Utilities should be given the opportunity to earn an overall return commensurate with the risk to which they are exposed.

Utilities should not be penalized for prudent decisions regarding either construction or cancellation of power supply or transmission options.

Rates Should Be Unbundled, Nondiscriminatory and Based on the Cost of Providing Service

Utilities should offer unbundled electricity supply and transmission service. Various qualities of service should be available to customers, with rates for each service reflecting the costs incurred. Generally, lower-quality service should be priced less than higher-quality service. No customer should be required to subsidize other customers, customer groups or classes of service.

Transmission should be offered as a separate service on a nondiscriminatory basis. It should be priced according to costs. Utilities should be motivated to offer — and they should be compensated appropriately when they provide — transmission service.

Federal and State Electric Policies Should Be Coordinated Rational and Consistent

Electricity customers need an adequate, reliable and efficient electricity supply. Industrial customers must be able to predict the availability and cost of electricity supplies within each state that they operate. Inconsistent state or federal regulatory policies make it difficult for utilities, regulators and customers to satisfy these needs.

egulatory Oversight hould Be Able o Cope with a ore Competitive nvironment

Regulators should assess the competitiveness of the industry from various aspects and identify those areas where competition cannot protect customers. Regulation should be relaxed where competition offers appropriate protection. Regulation should be directed towards areas where exploitation may prevail.

Regulation should take a long-term view of the industry. Regulators should strive for consistency and predictability. Regulatory policies should be clearly articulated and uniformly applied.

Regulatory decisions should appropriately reflect input from all interested parties. They should not discriminate between customers or customer classes. They should provide adequate legal review.

IMPLEMENTING STRATEGIC GOALS: ELCON POSITIONS AND RECOMMENDATIONS

Generation

1. Regulated utilities should competitively bid for capacity purchases from unregulated generators. Extreme care must be taken to develop a nondiscriminatory competitive bidding process. Due consideration should be given to reliability. The utility's avoided costs, approved by its regulatory authority, should be the ceiling *either* for purchases of electricity or for cost recovery from customers if the utility decides to build.
2. New generating facilities should have no fuel, efficiency, technology or ownership limitations as long as there is guaranteed access to multiple markets for nonutility-owned generators.
3. Divestiture of existing regulated generators into utility- or nonutility-owned entities may create considerable financial and equity problems. Hence, any such restructuring must be carefully evaluated by regulatory commissions with adequate input from consumers. Approval of proposed divestiture must be accompanied by a finding that benefits exceed costs.

Transmission

1. Utility transmission service must remain under strict control of regulation.
2. Users, including cogenerators, that meet specified characteristics should be allowed to apply for wheeling orders. Nonutility applicants should be treated the same as utility applicants for similar service. Evaluation procedures should be simplified and expedited.
3. State regulatory commissions should have the authority both to order and set rates for *intrastate* wheeling. Wheeling is deemed to be intrastate if both the delivery and receiving points are in the same state.
4. FERC should have the authority both to order and to set rates for interstate wheeling. State PUCs should be able to request an expedited hearing at FERC if they choose to intervene.

5. Utilities should bear the burden of showing lack of capacity, degradation of reliability or other factors relating to the inability to provide requested services. Rules should establish a rebuttable presumption that the capability to wheel exists.
6. Users who cease firm purchases, undertake wheeling and then desire to re-establish firm service should be viewed as new customers by the utility with no superior or inferior standing unless other arrangements (e.g., standby rates, contracts, etc.) have been negotiated.
7. Commissions should have the authority to order the construction of both new transmission lines and appropriate modifications to existing facilities to facilitate wheeling if the net costs attributable to a wheeling applicant are borne by that wheeling applicant and the utility is unable to demonstrate significant adverse impact on the system.
8. Upon request, utilities should be required to establish both wheeling tariffs and terms and conditions on a nondiscriminatory basis. Wheeling orders, tariffs, arrangements, etc., should be public information and should be available in a clear and easily retrievable format.
9. Wheeling rates should be based on cost-of-service. Methods used for calculating the cost of wheeling services should recognize that generally it costs more to wheel over long distances than over short distances. They should take into account the:
   - degree of firmness of the service,
   - timing and length of the service,
   - pattern of loading on the transmission system, and
   - facilities used to provide the service. Specifically,
     * all transmission plant is not used in all wheeling arrangements, and
     * subtransmission and distribution facilities usually are not part of the wheeling rate base.

   Regulatory commissions should carefully study alternatives to the specific costing method(s) to be implemented by the wheeling utility.
10. Except in unusual circumstances, decisions should be rendered on a fixed time schedule. Commissions should have the authority and the responsibility to resolve disputes expeditiously and order interim wheeling.

Responsibility for Utility Costs

1. Prudently incurred costs of regulated utility assets should be borne by ratepayers. These assets should be placed in rate base.
2. Utilities that have capacity not in rate base should be encouraged to sell the output from that capacity. They should be allowed to keep the revenues from that sale.

Regulation

1. To the extent public utility regulation requires the continuous application and understanding of legal, economic and engineering principles, due consideration should be given to the selection of commissioners with education and/or life experience in one or more of the areas of law, economics or engineering. Commissioners should be compensated at or near the highest level of non-

elected state officials or cabinet officers. Terms of commissioners should be of significant length to ensure that long-range policy as determined by the commission be implemented consistently and predictably. Provisions should allow removal for cause.

2. In the evolving public utility regulatory environment where competitive elements are emerging, commissioners should use existing legal authority to its maximum extent as a vehicle for proactive rather than reactive change. Commission budgets should be established at levels sufficient to ensure that commissions have available necessary personnel and resources to be effective.
3. Attempts should be made to improve forecasting. Commissions should implement a "minimum filing requirement" (MFR) similar to the recently approved NARUC MFR.
4. Commissions should study ways to avoid/reduce rate shock. Phase-in plans should be implemented where warranted.
5. Concepts such as statewide oversight (preferably through the commission) of generation and transmission line siting should be encouraged through either regulation or, where necessary, legislation. Consistent with developing trends in least-cost planning, commissions should determine whether federal legislation or regulation may facilitate and enlarge the transfer of less-expensive bulk power across state lines.
6. In the evolving regulatory environment, all ratepayers must be afforded the maximum legal opportunity to be notified, comment, and be heard on any regulatory change that may affect the price or quality of service provided. Commission procedures regarding notice and hearing must provide a timely and fair forum for the resolution of all disputes which may arise.

APPENDIX C

CROWELL & MORING

January 25, 1988

ELCOM Memo to FERC Staff:
Efforts to Encourage Competition Without
Transmission Access Are Fatally Flawed

ELCON believes utilities should use competitive bidding instead of administratively determined avoided costs to establish capacity payments for qualified facilities (QFs), provided competition is built into the bidding guidelines and fairness is assured. Transmission access is an essential prerequisite to assure economic efficiency and protect the public interest within the state where the bidding system operates and within the relevant market region. Thus, increased transmission access must apply to a voluntary, all-source competitive bidding system.

For ELCON, the essential prerequisite to workable competition and fairness is to condition any such competitive bidding system upon the agreement of participating utilities to provide non-discriminatory open access to transmission services, and thus avoid the kind of market distortions which result today from denial of access. Commendable as the FERC competitive bidding initiative is, it will be unduly discriminatory and unlawfully anticompetitive if it does not include an address to transmission access. Moreover, as FERC knows, a limited free market for bulk power has already emerged, and enhanced transmission facilities has been recognized as a long run method for dealing with disparities between regions in cost and capacity. Thus, the addition of a nondiscriminatory transmission access

condition to any voluntarily-adopted competitive bidding program will achieve benefits on a nationwide basis.

It is well established that FERC's regulatory power over electric utilities "clearly carries with it the responsibility to consider, in appropriate circumstances, the anticompetitive effects of regulated aspects on interstate utility operations. . . ." Gulf States Utilities Co. v. FPC, 411 U.S. 747, 758-59 (1973). As the U.S. Supreme Court pointed out in the context of federal electric power regulation, "[c]onsideration of antitrust and anticompetitive issues by the Commission, moreover, serves the important function of establishing a first line of defense against those competitive practices that might later be the subject of antitrust proceedings." Id. at 760. See also Maryland People's Counsel v. FERC, 761 F.2d 780, 787 (D.C. Cir. 1985); Northern Natural Gas Co. v. FPC, 399 F.2d 953, 958 (D.C. Cir. 1968). Moreover, the Commission's overriding mandate, under the Federal Power Act, is to "maintain competition to the maximum extent possible consistent with the public interest." Otter Tail Power Co. v. U.S., 410 U.S. 366, 374 (1973).

As Chairman Philip R. Sharp said in his opening statement at the September 10, 1987 hearing of the House Subcommittee on Energy and Power: " ... we must recall that our system of free enterprise eschews monopolies. The regulatory construct of vertically integrated 'natural monopolies' which was created at the beginning of this century was an exception to that rule that was justified by the technologies and economies of that time. For that reason, those who advocate continuing the natural onopoly, in the area of generation or otherwise, bear the burden f demonstrating that the technologies and economies of 1987 ontinue to justify an exception to the rule of competition."

The Commission is, then, obligated to consider the nticompetitive consequences of a competitive bidding scheme -- articularly one that encourages bidding from all potential ources, as appears to be favored by the Commission -- upon all egments of the general public. If the result would be undue iscrimination against captive sellers in the market for bulk ower (or, alternatively, an undue preference for tility-generated power) as ELCON maintains it does, then the ommission must modify its proposal to prevent such an unlawful esult. See discussion of Associated Gas Distributors v. FERC, nfra.

ELCON believes there are sound legal and policy reasons hich support its conviction that the competitive bidding prooosal must be modified so that those States electing to implement idding systems based on the FERC guidelines will condition such ystems upon the agreement by participating utilities to engage n conduct reflective of a truly competitive market. As ELCON ointed out in its comments filed August 9, 1985, in Docket No. M85-17-000 (Phase II), Regulation of Electricity ales-for-Resale and Transmission Services, true competition annot exist where there is only one purchaser (the utility) and merous sellers (the QFs, independent power producers (IPP), ther utilities, etc.). Such monopsony power is clearly inconsistent with a competitive market, and would be not only perpetu-

ated but exacerbated by implementation of the FERC competitive bid proposal without a corresponding transmission component.

Under current circumstances, QFs typically do not have adequate access to transmission facilities, and thus often cannot secure truly market-based rates for their power and multiple market opportunities. As sellers of power, QFs -- and especially IPPs -- are typically "captive" to a single interconnected utility purchaser. Utilities, on the other hand, continue to have unfair and anticompetitive market advantages, and through voluntary transmission arrangements with neighboring utilities and participation in power pools and regional bulk power coordination have an overwhelming market influence as both buyers and sellers of electric power. See generally ELCON comments filed August 9, 1985 in Docket No. RM85-17-000.

The implementation of all-source competitive bidding in this already skewed and defective market would simply lead to increased market dominance for the purchasing utilities and greater discrimination against "captive" sellers of electric power. In an otherwise laudable attempt to impose what is in essence a rate design that truly reflects "avoided costs" as defined by a competitive market, the Commission is neglecting the fact that, without transmission access, QFs and IPPs have only the most uncompetitive market in which to compete. In other words, the purchasing utility has a potentially vast array of sources from which to receive bids; likewise, utilities seeking to sell excess capacity will have new, potentially non-adjacent markets in which to bid for sales. The captive generators, however, are potentially limited to a single buyer and it is certainly in that buyer-utility's best interest to deny those sellers access to any outside markets. Thus, absent transmission access for QFs, utility generation would be favored over non-utility generation, since QFs (and IPPs as well) are precluded from competing equally in markets outside the sphere of influence of the host utility.

Given the potentially discriminatory and anticompetitive consequences of a competitive bidding program, the Commission is not only fully empowered but obligated to condition the voluntary implementation of such a program on the participating utility's agreement to offer transmission access to all generators -- notably, the QFs and IPPs who are unsuccessful bidders -- on a nondiscriminatory basis. The most relevant precedent here of course is the recent D.C. Circuit Court of Appeals decision regarding FERC Orders No. 436 and progeny in Associated Gas Distributors v. FERC, 824 F.2d 981 (D.C. Cir. 1987).

In a natural gas context highly analogous to the one at bar, the Commission imposed a condition of nondiscriminatory service upon interstate natural gas pipelines seeking to participate in a voluntary, new transportation program notable for its relaxed regulatory hurdles. As noted by the reviewing court, the Commission justified the "open access" condition on the following findings:

> (a) that pipelines continue to possess substantial market power, . . . (b) that they have exercised that power to deny their own sales customers, and others without fuel-switching capability, access to competitively priced gas, . . . and (c) that this practice had denied consumers access to gas at the lowest reasonable rates. . . .

AGD, ___ F.2d at ____ (slip op. at 30). Thus, concluded both the Commission and the court, "discrimination in transportation has denied gas users, and the economy generally, the benefits of a competitive wellhead market." Id.

Significantly, in challenging the nondiscrimination condition of Order No. 436 as an unlawful imposition of common carrier status, the pipelines based their arguments, overwhelmingly, upon cases in the electric generation field.1/ Although also noting statutory distinctions, the appellate court analyzed the electric cases on their merits, and found that "neither Richmond nor Florida comes anywhere near stating that the Commission is barred from imposing an open-access condition in all circumstances." Slip op. at 28. Rather, the court recognized subsequent electric precedent in which the Commission's power to broaden access was upheld "as a proper exercise of its power to prevent undue discrimination." Id. at 29, citing Central Iowa Power Coop. v. FERC, 606 F.2d 1156 (D.C. Cir. 1979). See also Florida Power and Light Co. v. FERC, 617 F.2d 809 (D.C. Cir. 1980); Florida Power and Light Co., 19 FERC ¶ 61,269 (1982); Confederated Salish and Kootenai Tribes of the Flathead Reservation v. Montana Power Co., 28 FERC ¶ 61,141 (1984); Wabash Valley Power Association, Inc. v. Northern Indiana Public

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1/ The two cases most heavily relied upon were Florida Power & Light Co. v. FERC, 660 F.2d 668 (5th Cir. 1981) and Richmond Power & Light v. FERC, 574 F.2d 610 (D.C. Cir. 1978).

ervice Co., 23 FERC ¶ 61,179 (1983); Kansas Power and Light Co., 0 FERC ¶ 63,028 (1985); New England Power Pool Agreement, 56 .P.C. 1562 (1976), aff'd Municipality Power Authority v. Kentucky ilities, 25 FERC ¶ 61,204 (1983); Sunflower Electric Cooperative . The Kansas Power and Light Electric Illuminating Company, 7 ERC ¶ 63,030 (1979), mod. in part, aff'd in part, 11 FERC 61,114 (1980). Although the court ultimately vacated and manded Order No. 436 on other grounds, it upheld the ondiscriminatory access condition as a reasonable and appropriate xercise of the Commission's authority to prevent undue iscrimination.

ELCON submits that parallel findings to those underlying der No. 436 exist with equal force here. First, electric ilities clearly have and are continuing to exert monopoly power ver non-utility generators of electricity who lack transmission ccess. Second, the impact of this monopoly power is to deny otential sellers of electric power access to the market and hereby deprive consumers the benefits of a competitive electric neration market. To the extent competitive bidding will rpetuate and, more likely, exacerbate this discriminatory situ- tion, its voluntary use must be conditioned upon the utility's illingness to provide transmission access and, thereby, access to he electric power market.

A competitive bidding program, alone, utterly fails to ldress the monopsony market power that utilities have over ansmission, and fails to recognize the studied reluctance of ilities to wheel for QFs, which has led to market distortions

and resulting inefficiencies. Thus, only by conditioning bidding systems upon an agreement by participating utilities to engage in conduct truly reflective of a free market can FERC's competitive bid guidelines pass muster. FERC must recognize that refusals to provide open transmission access lead to inefficiencies and create market distortions, and in this context will create a "QF ghetto" where QFs and independent producers will compete against themselves but will be barred from supplying power to non-adjacent markets in which their own purchasing utility competes as seller.

FERC needs to squarely address these difficult issues of basic fairness. If it declines to do so, for political, practical or other reasons, it runs the substantial risk that the D.C. Circuit Court of Appeals will find, on review, that the FERC order, decision or rule does not meet the test of reasoned decisionmaking. As the Court said May 1, 1987 in another natural gas case, Public Utilities Commission of California v. FERC, et al., No. 86-1078, slip opinion at 11:

> "The difficulty for us is that FERC never grappled with any of these competing considerations; it devoted its attention to perceived flaws in alternative approaches while failing adequately to explain the comparative advantages of its approach ... over those alternatives. The Commission's analysis, when measured against the standard of reasoned decisionmaking, is intolerably mute, see Greater Boston Television Corp. v. FCC, 444 F.2d 841, 853 (D.C. Cir. 1970), cert. denied, 403 U.S. 923 (1971); cf. Center for Science in the Public Interest v. Department of the Treasury, 797 F.2d 995, 999 (D.C. Cir.1986); International Ladies' Garment Workers' Union v. Donovan, 722 F.2d 795, 817-18 (D.C. Cir. 1983), and thus deficient in a critical respect."

Moreover, from a policy standpoint, increased open access to electric power transmission would lead to a better balance between any disproportionate regional independent power development and the long-term national demand for electricity. Such access would increase efficiency and productivity, and thus would benefit ratepayers in many ways. Equally important, it would help make U.S. industry more competitive both within the U.S. and with its aggressive off-shore competitors.

The fundamental point, which should not be overlooked, is that we are talking about a very real competition for the electric power market today. And we are talking about cost-related issues; enhanced transmission services make it easier for utilities to reduce or defer generation expansion and correct regional capacity imbalances - in effect, they help to hold down the avoided cost level which any individual utility is looking at. So the challenge to FERC is to not merely "keep peace" with the investor-owned utility industry by not opening up the transmission "can of worms", but rather to be a constant stimulant to the types of meaningful competition which are a better insurance policy of long term lower rates than the most meticulous simulation of a competitive bid system without wheeling. Competitive bidding under PURPA is thus not a self-contained policy, but a portal to emerging policies of restructuring and deregulation of important national significance.

ELCON recognizes that the Commission's current focus on PURPA implementation, as exhibited by the proposed competitive

bidding scheme, is but one element of its comprehensive examination of the electric industry. See Statement of Martha O. Hesse, Chairman of the Federal Energy Regulatory Commission Before the Energy and Commerce Subcommittee on Energy and Power, September 10, 1987. As Chairman Hesse has recognized, other issues -- including transmission pricing and access generally -- need to be addressed by the Commission on a generic basis. Id. at 4. However, the Commission's long-term goals for reform in this area cannot serve as an apologia for failing to incorporate ELCON's suggested modifications with respect to its competitive bidding proposal now.

Although the Commission has broad discretion to experiment with new ideas, American Airlines, Inc. v. CAB, 359 F.2d 624 (D.C. Cir.), cert. denied, 385 U.S. 843 (1966), and is not obligated to resolve all of an industry's ills in a single proceeding, Wisconsin Gas Co. v. FERC, 770 F.2d 1144, 1159-60 (D.C. Cir. 1985), cert. denied, 106 S. Ct. 1968 (1986), it may not pursue a program that would itself increase the utility's monopoly power, to the detriment of the public interest. This was the clear message from the reviewing court in the Maryland People's Counsel cases.1/ There, in an analogous natural gas regulatory context, two Commission-sponsored pipeline transportation programs were rejected by the court as being unduly discriminatory and anticompetitive. In reaching this conclusion,

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1/ Maryland People's Counsel v. FERC, 761 F.2d 768 (D.C. Cir. 1985) (MPC I) and Maryland People's Counsel v. FERC, 761 F.2d 780 (D.C. Cir. 1985) (MPC II).

e court rejected the Commission's arguments, inter alia, that mplaining parties' concerns about potential discrimination could dealt with in subsequent proceedings, MPC I, 761 F.2d at 778, C II, 761 F.2d at 787, and also that the subject program is rely an experimental "step in the right direction." With spect to the latter argument, the court responded

> just as there are reasonable programs and arbitrary programs, so also there are reasonable experiments and arbitrary experiments. The law governing our review does not demand an impossible predictability, but it does demand an articulation, in response to serious objections, of the Commission's reasons for believing that more good than harm will come of its action -- even experimental action.

C I, 761 F.2d at 778. Likewise, the competitive bidding prosal may be a laudable experiment for its limited scope, but it nnot be adopted if its effects would create a more harmful ticompetitive situation than existed before.

Commissioner Stalon implicitly recognized this when he stated p. 34 of his prepared September 10, 1987 Congressional stimony for the Energy and Power Subcommittee, that:

> "I believe the FERC could create an option for state commissions implementing bidding systems to condition participation in a bidding scheme upon the aspirant participant's not using its monopoly over transmission facilities to deny access to the bid market to another potential bidder. For instance, if a neighboring utility wished to participate in the bid, it would have to make its surplus transmission capacity available to a distant utility that also wished to bid. ..."

ELCON also supports the notion that the Commission " ... should irst conduct a thorough inquiry and analysis into all the major reas of its regulation of electricity and make such reforms as seem reasonable under its existing legal authority, insofar as it can." (Commissioner Stalon's prepared testimony at p. 38, September 10, 1987). That is why ELCON analyzed the Commission's existing authority and suggested specific regulatory actions it could take to promote and encourage a more competitive electric power market in the ELCON RM85-17 (Phase II) comments, supra, which was the beginning of that "thorough inquiry" over two years ago. Some of these regulatory actions, all of which are consistent with FERC's existing authority under the FPA and under PURPA, are: (1) redefinition of the "relevant market" in transmission cases consistent with that used in antitrust determinations; (2) stating explicitly that sellers of transmission services, as well as purchasers, may apply for orders; (3) specifically define what constitutes a "refusal" to provide service and under what circumstances that refusal might be unduly discriminatory; (4) consider ordering wheeling in cases where it finds practices that constitute undue discrimination or where it finds unduly restrictive or discriminatory terms or conditions in merger or pooling agreements or wheeling rate or service schedules; (5) establish by regulation a rebuttable presumption that the capacity to wheel power over a utility's system exists unless proven to the contrary by the utility, and (6) establish strict timetables for the consideration of requests for voluntary transmission. All these steps can be taken by the Commission now, in furtherance of its stated goal of moving toward a more competitive electric power market.

Philip A. Fleming
Crowell & Moring

Senator **Melcher**. Thank you, Mr. Anderson.

Larry Hobart.

STATEMENT OF LARRY HOBART, EXECUTIVE DIRECTOR, AMERICAN PUBLIC POWER ASSOCIATION

Mr. **Hobart**. Thank you, Mr. Chairman.

I would like to talk briefly about PURPA, about IPPs and about transmission.

First, with respect to section 210 of PURPA, as the committee is fully aware, self-regulated utilities, including public power systems of which there are 2200 in this country, are required to implement the PURPA provisions under the rules laid out by FERC. It is our belief that the statute definitely does not demand purchases when none are required to meet need, and that it clearly contemplates and adjustment in price levels to match realistic alternatives over a period of time.

Further, public power systems in general support the concept of least-cost analysis of how to meet increments of need. That analysis calls for an examination of end uses controls, third party generation and actual powerplant itself. And it dictates that all of those sources or potential savings in energy use compete with one another in order to arrive at an economic answer.

PURPA projects are clearly a part of that mix, and it seems reasonable that they compete against energy conservation and power production measures to meet the standards which consumers ask utilities to meet.

I think the experience by States and by local, self-regulated, consumer-owned electric utilities indicates that it is possible to apply this approach now without a change in FERC rules.

With respect to IPPs, FERC is required to insure that the rates charged by jurisdictional utilities are just and reasonable and that they do not result in undue preference, advantage, prejudice or discrimination. This is a statutory responsibility which is of key importance to the members of our association. Some 900 local publicly owned electric utilities buy all or part of their electricity from private power companies that are jurisdictional with the Federal Energy Regulatory Commission. That includes a number of entities which we might today call IPPs, but which existed prior to the time that phrase was coined. They are in existence for a long period of time, and they have been subject to FERC jurisdiction. And I list a number of them in my prepared statement.

Interestingly enough, in more modern times we find a somewhat similar attitude exercised on the part of the Commission over existing IPPs. For instance, in February of 1987 the FERC stated its view that Ocean State Power—and we have a representative of that company here today, which is a newly formed IPP—owns jurisdictional facilities; that that firm must make any filings required by the Federal Power Act and Commission regulations, including provision of cost of service data; and that the company is subject to rate review under section 205.

It is our view that the FERC cannot abandon its statutory responsibilities to deal with the cost of service and the rates of jurisdictional companies. And to protect the interests of wholesale consumers, it is essential that it implement in an effective fashion that clear responsibility.

The Commission itself has indicated that it accepts this point of view. And it said as recently as last month that it will entertain and has a right to raise itself prudency challenges in wholesale rate cases which involve the question of whether an IPP transaction satisfies a system's needs at the lowest cost.

This is of particular importance in situations that involve an element of self-dealing. For instance, a number of IPP projects, including Ocean State, have ownerships which include utilities who are actually going to use or buy, in effect, the product from that particular facility.

It is also important to recognize that the subsidiaries of a number of private power companies are moving increasingly into this field, and a question—which is to say, clear responsibility for FERC—would be to insure that any transactions that take place between those subsidiaries and the parent company are arm's length and that rate payers receive full protection accorded them under the Federal Power Act.

It is also clear—and this matter was discussed a few minutes ago in the first panel—that private power companies in a number of instances are seeking to remove their bulk power supply facilities, power plants, transmission lines from jurisdiction of state commissions and, in effect, transfer that responsibility to the Federal Energy Regulatory Commission. To the extent that this is done to alleviate the perceived burden of regulation to the detriment of consumers, it is difficult to construe that to be in the public interest.

The ability of FERC to measure actual and alternate cost of service and to adjust rates to meet this test is the only practical protection which many wholesale customers have in seeking to insure that the rates that they are charged are just, reasonable and nondiscriminatory. And it is the association's view that that kind of protection should continue.

It is important also to recognize that all these IPPs, while they are new corporate entities, do not necessarily represent a new or unique development, as I suggested a moment ago. It is a clear fact that there is no special reason to give them some protection in perpetuity. They are employing techniques that are available to electric utilities themselves, and it is also true, as pointed out in the previous panel, the utility must screen these individual proposals to see they meet standards of cost, size, dependability, dispatchability, and other elements that are important for the operation of electric utilities.

My conclusion about IPPs would be that it does not appear on the face of it necessary to abandon basic regulatory protections to secure these advantages.

I think we can actually learn something from our experience with PURPA, and that is while we have received clear advantages from the existence of small power producers and cogenerators in a more massive way in the last 10 years, there are also sometimes associated problems with those developments as far as integration into utilities is concerned. And the lesson would seem to be—and it could be applied I think to IPPs—don't enshrine any particular power source with special protection, but force all to compete and allow utilities to make the decision subject to public review.

My third point, Mr. Chairman, relates to transmission. And while much of the Federal Energy Regulatory Commission's proposals that you have under examination here in this committee are bottomed on a belief that there is workably competitive situations existing in power industry, I think that is a contention that is definitely subject to challenge. And clearly the area of transmission brings that matter to the fore.

The Commission has deliberately subordinated to a level below that of its interest in other elements that we are discussing the question of transmission access. And I have laid out in my testimony a couple of examples of why I believe this is an important topic which should be addressed concurrently by the FERC.

One relates to the question of pricing and recounts the experience of the city of Geneva, IL, in seeking to improve its power supply situation, but initially blocked in that effort by its private power company supplier which imposed transmission charges which made uneconomic arrangements which could have otherwise been facilitated. The Commission, using its existing powers, was able to rectify that situation and required the filing of a cost of service based rate which permitted the city of Geneva to go forward with its transaction.

A second example which I think documents and illustrates the difficulty with respect to physical access is the situation faced by the Sacramento Municipal Utility District. That system put out an RFP seeking bids on power, received 49 responses to that request for proposals, and discovered that of that 49, 38 were dependent for their implementation on an agreement by the Pacific Gas and Electric Co. to move the power to the delivery point. Pacific Gas and Electric was one of the bidders itself, and to date there has not been ability on the part of SMUD to put together an agreement that allows it to perhaps realize the most economic power sources because of this transmission blockage.

There are other elements described in my prepared statement that indicate how this works in some areas of the country in a successful way. But I think that it is incumbent on the FERC to look to the possibilities of improving this situation through even the application of existing authority, the application of the antitrust laws, the use of the limited authority which the Commission has to order wheeling, its responsibility and authority to protect against predatory pricing, its need to disseminate further information on what agreements exist in the transmission services area, and if necessary to formulate a request to the Congress to ask for the powers it might need to insure that the transmission network is equitably available to all those who can use it in the interest of electric efficiency.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Hobart follows:]

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STATEMENT ON FERC INITIATIVES
SUBMITTED BY LARRY HOBART, EXECUTIVE DIRECTOR
AMERICAN PUBLIC POWER ASSOCIATION
TO THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE

February 2, 1988

APPA has been asked to comment on proposals before the Federal Energy Regulatory Commission to (a) clarify certain requirements of the Public Utility Regulatory Policies Act of 1978, (b) provide guidelines for the use of competitive bidding systems to acquire non-utility power under PURPA, and (c) create a new category of independent power producers (IPPs) which would be subject to reduced regulation under the Federal Power Act.

Dealing with "Qualifying Facilities". Section 210 of PURPA requires that self-regulated utilities, including systems regulated by city councils and elected or appointed boards, implement FERC rules for purchase of electric energy from qualifying cogeneration and small power production facilities at rates which are "just and reasonable to the electric consumers of the electric utility and in the public interest" and not discriminatory against qualifying facilities. The price level of the purchase is at at the "incremental cost of alternative electric energy," i.e. the cost of electric energy a utility would generate or purchase from another source.

The statute definitely does not demand purchases when none are required to meet utility needs, and clearly contemplates adjustment in price levels to match realistic alternatives in particular time periods.

"Need" is measured by requirements which can be affected by cost-effective energy conservation and load management, as well as by production and purchase of power. "Least cost" analysis of the spectrum of opportunities -- end-use control, third party generation, and utility power plants -- dictates that "qualifying facilities" compete along with all other alternatives to create an adequate, reliable supply of needed electricity at reasonable price with proper protection of the environment.

A key to the choice is consumer benefits. APPA has endorsed the approach of "least cost" planning in which utilities compare a spread of demand and supply side possibilities in the context of a long-term plan, present governing bodies with a showing that documents the selections as cost-effective for consumers, and implement the approved program subject to rolling readjustments. The results may be a mix of projects ranging through such activities as rebates for energy efficient appliances, support for waste-to-energy facilities, and joint construction of scrubbed coal-fired generating plants.

PURPA projects are potentially part of the mix. It seems reasonable that they compete along with other electricity conservation and production measures to meet the standards which consumers ask utilities to meet. Whether it is administrative determination of "avoided cost", "competitive bidding", or some other equitable and effective selection process, the point is to permit picking the efficient solution.

Experience by the states and local self-regulated consumer-owned electric utilities indicated that it is possible to apply this approach now, without changes in FERC rules.

Regulation of IPPs. FERC is required to insure that rates charged by jurisdictional utilities are just and reasonable, and that they do not result in undue preference, advantage, prejudice, or discrimination.

Public power systems are affected by the Commission's implementation of this responsibility in several ways:

- About 900 local publicly owned electric utilities buy all or part of their bulk power supply from private power companies whose charges are regulated by the Commission. Appendix A is a list of these systems.

- A number of public power systems participate in power pools whose terms and conditions are subject to approval by the FERC.
- Availability and prices of transmission and coordination services for municipal electric utilities can be determined by Commission action.

With respect to wholesale power purchases, public power systems receive the protections of Section 205 and 206 of the Federal Power Act which deal with filed rates of jurisdictional utilities. Under these provisions, FERC has regulated for many years utilities which look like what are currently described as independent power producers -- entities which possess no "significant" market power, have no "captive" customers, do not serve a retail franchise, and control no "essential" transmission. These existing IPPs would include the "Yankee" nuclear plants; energy producers such as Electric Energy, Inc., and Ohio Valley Electric Corporation; and Cliffs Electric and Safe Harbor Water Power. While the Commission may use waivers, abbreviated filings, formula rate-setting, and reservations of rights to deal with special situations which it may distinguish, it has preserved its ability to collect data pertinent to FERC responsibilities, to review transfers of property, to deal with conflicts of interest, to secure cost-of-service data, and to test rate changes.

For instance, the Commission in February, 1987 stated its view that Ocean State Power, a newly-formed IPP, owns jurisdictional facilities; must make any filings required by the Federal Power Act and Commission regulations, including provision of cost-of-service data; and is subject to rate review under Section 205.

FERC also cannot abandon its statutory responsibilities to determine that rates charged by investor-owned electric utilities subject to its jurisdiction are not adversely affected by IPP purchases. The Commission asserted last year that it will entertain, and has the right to raise itself, prudence challenges in wholesale rate cases which involve the question of whether an IPP transaction satisfies a system's needs at the lowest cost.

This point is of particular importance where utility self-dealing is involved, as is the case with Ocean State. Prior to the construction of the first unit, Ocean State intends to reorganize the partnership to include affiliates of the following companies at the indicated percentages: TransCanada Pipelines Limited (40%), Eastern Utilities Associates (25%), New England Electric System (20%), Newport Electric Corporation (4.9%), and private investors (10.1%).

As of the end of 1987, about 35 private power companies had formed cogeneration subsidiaries. Of this number, 29 had reportedly made equity commitments, and investments were estimated at $2.35 billion for shares in projects totaling 4,835 mw. A number of these subsidiaries supply power to their parent companies or other utilities. Depending on how they are structured, these projects may be qualifying facilities entitled to "avoided cost" payments from their parent companies. In any case, less than arms-length relationships result, to the possible detriment of rigorous supply bargaining. FERC has documented exactly this kind of problem in connection with utility-owned fuel suppliers.

In recent years, a number of private power companies have also sought to reorganize their utilities so as to move regulation of bulk power facilities -- power plants and transmission -- from the state to the federal level, where it is assumed rate review will be more kind and FERC-approved wholesale changes (representing roughly three-quarters of the cost of delivered power) can be flowed through to consumers without state scrutiny. These efforts to create separate generation, transmission, and distribution firms have been rebuffed by a number of state commission, primarily on the grounds that consumer protection would suffer. However, establishment of a new regulatory category of IPPs as proposed by FERC could be a way out for the IOUs: use of subsidiaries to sell to themselves and others at prices which would be subject to minimal "relaxed" rate regulation at FERC.

Ability of FERC to measure actual and alternative cost-of-service and to adjust rates to meet this test, is the only practical protection which many wholesale customers have in seeking to insure that rates they are charged are just, reasonable, and nondiscriminatory. Under existing law, this means that two points of consumer protection are available: Commission scrutiny of IPPs and/or IOUs. The public interest would not be served by "relaxing" this regulation. Prior regulatory experience does not suggest that existing practices are not working effectively.

It is important to recognize that IPPs are not a new or unique development requiring special treatment; that they can -- and do -- sell in the marketplace now; that there is no special reason to secure them in perpetuity; that the technologies they employ are technologies also available to electric utilities; and that a utility must screen individual proposals based on standards of cost, size, dependability and dispatchability, location relative to load centers, progress in securing permits, and other pertinent economic and engineering factors.

In a real sense, independent power producers are turnkey projects where the builder keeps the key -- a surrogate for utility construction. If they can do a better job of keeping construction costs and operating expenses down, running the plant more efficiently, meeting environmental standards with greater ease -- they should be the project of choice. They offer another option -- an opportunity to open up the bulk power supply market in a different way.

But we do not need to abandon basic regulatory protections to secure these advantages.

We should also learn something from PURPA experience. While there is no doubt that our 10-year learning curve has shown that small power producers and cogeneration make significant economic and electrical contributions, they have also resulted in some extra expenses, planning difficulties, enhanced reliance on natural gas, and certain environmental conflicts.

The lesson would seem to be: don't enshrine any particular power source with special protection but force them to compete and allow utilities to make the decision subject to public review.

Transmission on Required Consideration. Much of FERC discussion of IPPs is bottomed on a belief that "workable competitive" markets for power currently exist. However, the discussion of change deliberately delegates to a subordinate level one of the basic instruments essential to secure competition: transmission. And when Commission members do discuss transmission, there is a tendency to focus on charges as the secret to effectuating a solution to any access difficulties, a suggestion that exaggerates the cost of transmission in utility accounting and utilizes the wrong wing of economics for the analysis -- price theory instead of industrial organization.

Here are some facts about transmission:

- Transmission lines link to load centers 10,475 utility generating units with 656,118 mw of operable capacity, EIA reported last year.

- Transmission capital costs and operating expenses are not the major element of electric utility charges.

  For major private power companies, the Energy Information administration reported in 1987 that, total generation plant accounted for $173.9 billion, total distribution plant for $83.5 billion, and transmission plant for $42.8 billion.

  Similarly, EIA statistics show total generation expenses were $62.8 billion, total distribution expenses were $4.6 billion, and total transmission expenses were $1.5 billion. Expressed in terms of percent of total operation and maintenance expenses, the breakdown was generation, 78.4%; distribution, 5.7%; and transmission, 1.8%. When looked at as a percent of operating revenues, the EIA number were 46.4% for generation, 3.4% for distribution, and 1.1% for transmission.

- A sample of 203 transmission service agreements taken from the 1065 on file with FERC in 1984 shows that postage stamp rates for firm wheeling vary by more than 700% when based on capacity charges and in excess of 4,000% when bottomed on kilowatt-hour prices, that contracts for non-firm kilowatt-hour wheeling differ by as much as 3,400%, and that line loss adjustment factors have a range which is 400% apart from top to bottom.

  Because a large number of these arrangements are bilateral agreements, not general tariffs, it is frequently possible to structure the opportunities for wheeling by setting the charges for individual utilities. If the price is set sufficiently high, it can make uneconomic a power supply deal which would otherwise be beneficial to a utility which could be considered a competitor. Thus, "flexible pricing" can be employed as a tool to promote or protect monopolization in the bulk power supply market.

- About 80% of the nation's 612,000 miles of transmission lines are owned by some 200 private power companies out of the country's 3,400 utilities of all ownership.

Ownership of transmission allows monopolization of markets. Here's an example:

On July 2, 1987, the Board of Directors of the Sacramento, California, Municipal Utility District (SMUD) directed its staff to solicit bids for 200 to 400 mw of firm dispatchable energy to be delivered to the District's transmission system at a price of 42 mills or less. SMUD received 49 responses. Among there were these:

• Pacific Gas & Electric Company	400 mw @ 48 to 62 mills/kwh
• Bonneville Power Administration	1,350 mw @ 30 mills/kwh
• Southern California Edison	400 mw @ 40 mills/kwh

Both the BPA and SCE transactions depended on PG&E transmitting the power to SMUD. However, PG&E was simultaneously seeking to buyout SMUD and/or to sell SMUD power at wholesale itself. While a physical path exists for the movement of the power, PG&E declined to agree to carry out the transmission service -- even though it would be compensated for performing the wheeling function. The result of this anticompetitive action could be the denial to SMUD consumers of sources of power at lower cost than that available from PG&E.

Appendix B is a table listing all 49 responses. As indicated, 38 of the responses were on third party transmission services for delivery. In each case, cooperation of PG&E -- a competitor -- was required.

SMUD is not the only California publicly-owned electric system which has experienced anticompetitive moves by PG&E. The Northern California Power Agency, a joint action agency representing the interests of a group of municipal electric utilities in Northern California, has experienced treatment designed to limit its economic viability. As reported to the California state legislature last Fall by NCPA general manager Mike McDonald:

"The examples of PG&E withholding transmission service are numerous and widespread."

Appendix C contains excerpts from McDonald's testimony which document the instances of PG&E obstructionism.

California is not, of course, the only state where anticompetitive transmission policies of private power companies work to thwart economic transactions sought by publicly owned electric utilities. The case of Geneva, Illinois, provides a Midwest example where FERC solved the problem.

Geneva has a municipal electric system, and bought power at wholesale from Commonwealth Edison Company. Under terms of a settlement, Geneva and Edison's other full requirements customers may obtain transmission and/or partial requirements service upon one year's notice. Geneva gave notice so that it would secure transmission in order to buy bulk power from a cheaper supplier. Edison filed a rate for transmission service which was designed to make the transaction uneconomic, including a charge for an unrequested stand-by service. FERC ordered Edison to file a transmission rate based on Edison's average embedded costs of its transmission system, and to drop the stand-by charge. The Commission pointed out that:

"By the terms of the agreement, Edison was to enable any of its wholesale customers to pursue alternative power supply options under reasonable parameters. Implicit in such an arrangement must be an agreement that transmission service will be priced reasonably relative to existing service being provided by the utility."

FERC noted that Edison proposed a rate which was approximately four times the price that had been quoted to Geneva during its evaluation of suppliers -- "a rate that will effectively preclude the supply switch negotiated by Geneva." Concluded the FERC:

"Despite the obvious objective of the parties' settlement to make available viable supply alternatives for the affected customers, the pleadings make clear that the arrangements negotiated by Geneva will necessarily be foreclosed if the proposed rate is placed in effect. Whatever ultimate findings the Commission might make with regard to the merit of Edison's pricing structure or, conversely, its anticompetitive effects, we know at this point that the filing will immediately subject Geneva to an observable prejudice or disadvantage in the power supply market, that will not be remedied through later refunds. Based on all the circumstances, including the support proffered by Edison to date, it simply has not satisfied its burden of proving that its rate proposal is just, reasonable, and otherwise lawful."

What does this kind of opportunity mean to local, publicly-owned electric utilities?

In Wisconsin, a joint action agency supplies the bulk power supply needs of 27 municipal electric utilities. Within a nearly 1,000-mile radius, the agency contracts with 10 different generating utilities in five different states for power and transmission services. The results of this competitive bulk power supply market are savings of $2-3 million per year on a revenue base of about $75 million. The agency's largest "supplier/competitor" lowered its on-peak energy rates from 43.3 mills to 29 mills per kilowatt-hour while also reducing its off-peak energy rates and maintain a steady demand charge -- results in direct response to competition in the field of bulk power supply. Here's how the agency's manager, Dave Penn, described the situation to a British correspondent:

"In their efforts to compete this last year, all four of our state's investor-owned utilities implemented unheard of wholesale rate deceases that ranged from 3-11% after being negotiated. Moreover, the state's regulatory commissioners have acknowledged publicly that all

> of the state's ratepayers have benefited because of this new pencil sharpening and cost consciousness that we helped induce, not just the ratepayers in my member's jurisdictions."
>
> * * *
>
> "The advantages of this competitive process are obvious and large. Consumers get cost savings and lower rates. The utilities become more cost conscious and efficient. Transactions between areas of excess and deficit power yield short run savings as well as better long run planning to eliminate this problem in the future. No losses of reliability have been, or would have to be, sacrificed to gain these competition benefits."
>
> * * *
>
> "In the U.S. much of the competition of process that I describe is a function of the current excess capacity situation. When supplies become tight again, absent any institutional change, the companies that own the transmission network will exercise that 'natural monopoly' control. They will raise supply prices, restrict entry, and tie access to transmission to other bulk power sales from their own company. They can do this in our country because the private utilities are vertically integrated, owning generation and transmission and distribution, and because no regulatory authority has been given the ability to require wheeling or common carriage. Many of us in the industry are trying to get our policymakers to address this issue now, rather than wait until a crisis or abuses leaves them no alternative."

With respect to transmission, the impression left by FERC is that if prices are set at the proper level, a utility will automatically do what is in the public interest. But the fact of the matter is that maximization of monopoly power and profits may dictate utility decisions which do not match the "reasonable man" ideas of FERC.

FERC has failed to use fully the power it has -- application of the antitrust laws, limited authority to order wheeling, actions against predatory pricing, dissemination of information on industry policies and practices, a request for expanded authority form Congress where it is necessary to get the job done.

Terms and conditions for transmission access are key issues for the electric utility industry and the general public. They are important because:

- In normal operations of utilities, transmission is a basic ingredient in making the utility system work well through economic dispatch, diversity exchanges, emergency backup, coordination serviced, shared reserves, and other techniques, which help get the most out of an interconnected system.

- Surplus generating capacity is unevenly distributed throughout the country. To make good use of surpluses, willing buyers and sellers must have ready access to each other so that the most efficient units can be operated at their optimum dispatchable levels.

- A relatively few large, vertically integrated electric utilities dominate transmission. Ownership of transmission facilities can create classic "bottleneck" monopoly power over an essential part of utility operations, and block efforts to improve bulk power supply.

- Public concerns about environmental and esthetic damage limit the number of allowable transmission facilities and encourage multiple use of rights-of-way. Duplication of facilities is also discouraged for economic reasons.

- In the case of new generating plants, major electric generating stations are located where there is a confluence of the necessary elements -- a large land area, economic access to a fuel supply, a plentiful amount of water, an adequate transportation system, a place to dispose of surplus heat, and an absence of unacceptable aesthetic insults. There are not many places like that left. To share the sites, transmission access is essential.

- Only with equitable opportunity for utility use of transmission facilities can there be assurance of workable competitive bulk power markets.

Changes in the Utility Industry. In evaluating the questions of qualifying facilities, independent power producers, and transmission, it is important to understand what is happening in the electric utility industry and what is not. Consider these facts:

- Commentators who support "non-utility" power production would have us believe that the era of central station electric service, with large generating units owned and operated by utilities, has ended. However, three public power systems last year brought on line 1,775,000 kw of coal-fired capacity and an additional 1,350,000 kw will be available shortly in second units at these sites, which are also capable of expansion to add even more units. The total operating or under-construction capacity represents nearly 5% of all local public power installed capacity.

The three plants have exemplary records on capital costs and construction deadlines, offer long-term competitive sources of bulk power supply for a large number of public power systems, use a plentiful fuel with reasonable price stability, demonstrate that environmental problems can be effectively solved, reveal that economies of scale in generation have not disappeared, and show that multiple-utility partnerships are effective devices to share risk and spread benefits.

These facts do not mean that cogeneration and small power production are not significant sources of supplemental supply. They are -- and will be. But it is important to keep things in perspective.

A study by the Washington, D.C. consulting firm Hagler, Bailly & Company recently identified 4,600 cogeneration (production of both electricity and steam or hot water for commercial purposes) and small power projects (80 mw or smaller, fueled by biomass, waste, renewable or geothermal resources). They include more than 2,800 projects with 24,300 mw in operation, and 28,232 mw under construction or active planning. Hagler, Bailly identified about 11,000 mw as either indefinitely postponed or cancelled. The firm predicted total on-line capacity as high as 44,306 mw in 1995.

Cogeneration projects account for 75% of the total active capacity. Although we hear a great deal about the use of renewable fuels for power production, the Hagler, Bailly study noted that the majority of cogeneration projects (57%) are fired by natural gas with coal fueling an additional 27%. Other fuels such as oil, propane, biomass and wood fired systems accounted for the remainder. Combined-cycle systems and boiler/steam turbine facilities each accounted for 35% of the cogeneration.

Among small power projects, hydroelectric facilities accounted for the largest single block of capacity (2,900 mw) with waste and geothermal steam supplying another major segment 2,000 mw). An interesting fact is that 20,200 mw of the total active capacity -- 38.5% of the total tabulated by the firm -- is located in either California or Texas . Another arresting statistic is that about 26% (13,600 mw) of the active capacity is owned by the chemicals industry.

What do all these numbers suggest?

Cogeneration and small power production can continue to play a role in future power supply, but the overall impact appears to be highly state- and industry-specific, and the total amount of capacity predicted for the U.S. is a small part of all existing utility resources (647,000 mw) or those expected to be in place in 1996 (716,000 mw).

Much of the capacity discovered by Hagler, Bailly is gas-fired and its economic viability will be affected by possible price escalation for this fuel.

All of the approaches described in the study involve conventional technologies that have been employed by electric utilities and industrial establishments for many decades, the embellishment in the case of cogeneration being the use of waste heat as a thermal resource -- a practice which has waxed and waned over the years depending on the comparative prices of electricity and fuels matched to the manufacturing or space conditioning needs of a user.

- Discussion of technical approaches leads to a third questionable formulation that is circulated currently -- the suggestion that technological change makes necessary radical restructuring of the electric utility industry. FERC Chairman Martha Hesse told Congress recently that "new technologies" and "technological advancements" are compelling rapid and dramatic change in the electric utility industry. The claim does not match the evidence.

What does change is the choice of technologies. The fact of the matter is that flawed application of an existing technology is really what causes all the talk.

A major reason for current political debate of restructuring is the very large cost of some nuclear power plants and the lack of load for them to serve. The terrible financial tabs for these "troubled" facilities has caused state regulatory commissions to question the judgement of utilities which continued to build them and has driven "competitive customers" (as opposed to captive "core customers" who don't have alternatives) to seek better solutions. The result has been "prudency disallowances" (where a private power company is not permitted to put all or part of a plant in rate base and earn a return on it), and actions by large users to self-generate, co-generate, seek incentive rates, "shop" for electricity from another source, close a plant, or move to a new service area.

The turnaround in declining costs experienced by the electric utility industry that began in the last 1960s was caused by a number of factors: the topping-off of economies of scale, the wild upward curve for fuel prices, spiraling inflation and interest rates, and more stringent regulatory review.

Recently, however, the costs for fuel, construction, and money have fallen, and plans for construction have slowed in an era of excess capacity. The last of the "troubled" nuclear power plants are working their way through the system toward completion or cancellation, and a minority of individual utilities are affected. Real costs of electricity have leveled off and even declined.

- The economics of the electric utility industry have changed because of growing efficiency in end-use due to consumer reaction to power prices.

  A National Association of Homebuilders' poll found that more than 68% of existing home owners said that energy efficiency would be their most important consideration if choosing a new home. Seventy percent of new homebuyers rated the quality of insulation and energy efficiency as very important factors in their decision to buy.

  Builders have responded to these views of home purchasers by building more energy-efficient houses.

  Home-appliance manufacturers contribute strongly. The Association of Home Appliance Manufacturers reported huge percentage increases in the energy efficiency of major household machines.

  Comparing 1984 to 1972, the appliance makers found new refrigerators used 34% less energy, new freezers 45% less, new dishwashers 36%, new clothes washers 34%.

  Development of power electronic controls permits use of variable speed motors which, together with energy management schemes and lighting improvements, are increasing the energy efficiency of commercial and industrial establishments.

What do all these facts suggest? They point us in these directions:

1. The objectives of reform in the electric utility industry should be to improve the lot of consumers by holding power prices down and by aiding the wise use of electricity. Utilities must offer customers a cost-effective menu of energy services designed to meet their specialized needs. Electrical efficiency will be essential to beat the competition.

2. The public today seeks both economic growth and environmental protection. A utility task is to reconcile -- trough planning technology -- these sometimes conflicting goals. Our cities and towns look for a "sustainable economy" -- one which preserves the quality of life and simultaneously plugs unnecessary leaks of energy dollars outside the community.

3. Demand-side answers to energy needs -- for example, conservation and load management -- must be balanced against supply-side solutions such as coal-fired generating facilities and cogeneration plans, to arrive at a "least cost" answer. But to make the comparison work, cost effectiveness

tests must be applied to both sides of the equation. The energy field today is facing a flood of supply -- an oil glut, a gas bubble, a coal oversupply, and an electricity excess. Power systems must deal with the entrepreneurial instincts and merchandising mechanisms of a buyers' market, and that fact represents significant pressure to hold costs down. Electricity today competes with fossil fuels, self-generation, and efficient energy management and devices for sales in a mature energy market. Improving efficiency and keeping costs down is an economic imperative for utilities.

4. Achieving these goals does not require radical change. We do not need to destroy the industry to save it. What is needed is a continuation of progressive planning and access policies initiated in the 1960s but sidetracked by the energy trauma of the 1970s. These policies recognize that the public favors pluralism -- the opportunity for choice on what kind of utility serves it at retail; pricing policies based on cost; and continued recognition of an obligation to serve.

5. Working off capacity surpluses will be painful, possibly crippling and even life-threatening to some utilities. However, for most utilities the crisis never materialized or has now passed. To help match surplus sellers with potential buyers, steps should be taken to open transmission access.

6. For the longer range future, when new generation is required to supplement optimum load management and energy conservation and to substitute for retired plants, regional planning must be employed. Planning is necessary to insure that the foreseeable needs of all utilities are taken into account in initiating new generation and transmission facilities which meet least-cost standards and in properly protecting the environment and public health and safety. Planning is required to permit the public to understand power proposals, and to secure a "sign off" which will permit utility implementation.

7. Utilities should assume leadership in carrying out these tasks. But history makes it clear that these tasks will not be addressed equitably in the absence of effective and enforceable government quidelines. Monopolistic control of essential facilities, anticompetitive acquisition policies, and

predatory pricing are problems which require public resolution. Plant sites and transmission rights-of-way cannot be obtained without governmental approval. the necessary authority must be formulated and exercised by Congress, state legislators, regulatory commissions and the courts.

8. The United States does not face an electrical emergency as far as generation is concerned. While national numbers can mask individual utility and regional problems, the fact is that there are large amounts of surplus capacity, and reserve margins remain high and efficiency in end-use application continues to increase.

The current hiatus in need is the time to prepare for the future. The electric utility industry is part of the social and physical infrastructure of the national economy, just like our roads, bridges, and waterworks. It is what makes American work. It must be maintained and improved -- a goal which demands public planning.

APPENDIX A

Public Power Systems that Purchase from Investor-Owned Utilities

PUBLIC POWER SYSTEMS THAT PURCHASE FROM INVESTOR OWNED UTILITIES

Alabama Power Company
- Jacksonville Electric Authority
- Dothan, City of
- Evergreen, City of #1
- Lafayette, City of
- Lanett, City of #1
- Opelika, City of #1
- Piedmont, City of #1
- Robertsdale, City of
- Sylacauga, City of Utility Board
- Troy, City of
- Tusksgee, City of Utility Board

Appalachian Power Company
- Bedford, City of
- Danville, City of
- Martinsville, City of
- Radford, City of
- Richlands, Town of
- Salem, City of

Arizona Public Service Company
- Electrical District #1
- Electrical District #3
- Electrical District #6
- Electrical District #7
- Roosevelt Irrigation District
- Welton-Mohawk Irrigation & Drainage District
- Wickenburg, Town of
- Page, Town of
- Arizona Power Authority
- Navojo Tribal Utility Authority

Arkansas Power & Light Company
- Paragould, City of
- West Memphis, City of
- N.L.R., City of
- Conway Corporation
- Benton Municipal Light & Water
- Hope, City of
- Osceola, City of
- Jonesboro City Light and Water

Bangor Hydro-Electric Company
- Lubec, Town of

Black Hills Corporation
- Eillette, City of
- Gillette, City of

Boston Edison Company
- Boylston, Town of
- Condord, Town of
- Holyoke, Town of
- Hudson, Town of
- Littleton, Town of
- Mansfield, Town of
- Marblehead, Town of
- Middleboro, Town of
- N. Attleboro, Town of
- Peabody, City of
- Reading, Town of
- Reading, Town of
- Shrewsbury, Town of
- Stoughton, Town of
- Templeton, Town of
- Wakefield, Town of
- Wellesley, Town of
- Westfield, City of

Cambridge Electric Light Company
- Belmont, Town of

Carolina Power & Light Company
- Bennettsville, City of
- Camden, City of
- Fayetteville, City of
- Waynesville, City of
- Louisburg, Town of

Centel Corporation
- Attica, City of
- Beloit, City of
- Hoisington, City of
- Osborne, City of
- Pratt, City of
- Russell, City of
- Stockton, City of
- Washington, City of
- LaJunta, City of

Central Hudson Gas & Electric Corporation
New York Power Authority

Central Illinois Light Company
Chatham, Village of
Riverton, Village of

Central Illinois Public Service Company
Altamont, City of
Bushnell, City of
Caire, City of
Casey, City of
Flora, City of
Marshall, City of
Metropolis, City of
Newton, City of
Rantoul, City of
Bethany, Village of
Greenup, Village of
Roodhouse, Village of
Sullivan, Village of

Central Louisiana Electric Company, Inc.
Boyce, Town of

Central Maine Power Company
Kennebunk Light & Power District
Madison Electric Works

Central Power and Light Company
Robstown, City of
Brownsville, City of

Central Vermont Public Service Corp.
Woodsville, Water & Light Department of
Ludlow, Village of
Hyde Park, Village of
Lyndonville Electric Plant
Burlington Electric

The Cincinnati Gas & Electric Company
Lebanon, City of
Georgetown, Village of
Ripley, Village of
Bethel, Village of
Blanchester, Village of

Cleveland Electric Illuminating Company
Cleveland Department of Public Utilities, City of

Columbus and Southern Ohio Elec. Co.
Am. Municipal Power-Ohio
Tennessee Valley Authority
Glouster, Village of
Jackson, City of
Westerville, City of

Commonwealth Edison Company
Batavia, Illinois
Geneva, Illinois
Naperville, Illinois
Rochelle, Illinois
Rock Falls, Illinois
St. Charles, Illinois

The Connecticut Light and Power Co.
Norwalk Third Tax District
Wallingford, Town of

Consumer Power Company
Bay City, City of
Charlevoix, City of
Eaton Rapids, City of
Harbor Springs, City of
Lowell, City of
Petoskey, City of
Portland, Village of
St. Louis, City of
Hart, City of

Dayton Power and Light Company
Piqua, City of
Ohio Power
American Municipal Power-Ohio
Arcanum, City of
Celina, City of
Eldorado, City of
Jackson Center, City of
Lakeview, City of
Mendon, Village of
Minster, Village of
New Bremen, Village of
Tipp City, City of
Versailles, City of
Waynesfield, City of
Yellow Springs, City of

Delmarva Power & Light Company
Newark, City of
New Castle, City of
Middletown, City of
Clayton, City of
Lewes, City of
Milford, City of
Smyrna, City of
Seaford, City of

Detroit Edison Company
Sebewaing, Village of

Duke Power Company
Concord Board of Light & Water
Dallas, City of
Forest City, Town of
Kings Mountain, City of
Due West, City of
Greenwood, City of
Prosperity, City of
North Carolina Municipal Power Agency Number 1
Piedmont Municipal Power Agency

Duquesne Light Company
Pitcairn Borough

Eastern Edison Company
Hingham, Town of

El Paso Electric Company
Imperial Irrigation District

Empire District Electric Company
Mt. Vernon, City of
Monett, City of
Lockwood, City of
Chetope, City of

Florida Power Corporation
Alachua, City of
Bartow, City of
Bushnell, City of
Chattahoochee, City of
Fort Meade, City of
Leesburg, City of
Mount Dora, City of
Newberry, City of
Ocala, City of
Wauchula, City of
Quincy, City of
Orlando Utilities Commission
Williston, City of
Jacksonville Electric Authority
Kissimmee, City of
Lakeland, City of
Lake Worth, City of
New Smyrna Beach, City of
Sebring, City of
St. Cloud, City of
Tallahassee, City of
Vero Beach, City of
Fort Pierce, City of
Starke, City of
Florida Municipal Power Agency

Florida Power & Light Company
Clewiston, City of
Ft. Pierce Utilities Authority
Green Cove Springs, City of
Homestead, City of
Jacksonville Beach, City of
Lake Worth, City of
Smyrna Beach Utilities Commission, City of
Starke, City of
Vero Beach, City of
Florida Municipal Power Agency
Seminole Electric Coop, Inc.

Georgia Power Company
Acworth, City of
Hampton, City of
Dalton, Cit of
Jacksonville Electric Authority
Tallahassee, City of

Green Mountain Power Corporation
Connecticut Municipal Electric Energy Cooperative

Gulf States Utilities Company
Kirbyville Light & Power
Caldwell, City of
Liberty, City of
Newton, City of
College Station, City of
Gueydan, City of
Kaplan, City of
Abbeville, City of
Erath, Town of
Rayne, City of
Welsh, City of

Holyoke Power and Electric Company
South Hadley, Town of (MA)
Holyoke Power and Elec. Co.
Chicopee, City of

Houston Lighting & Power Company
Austin, City of
Brownsville, City of
Lower Colorado River Authority
Texas Municipal Power Agency

Idaho Power Company
Weisen, City of
Burbank, City of
Glendale, City of
Pasadena, City of
Los Angeles Department of Water & Power
California Department of Water Resources
Western Area Power Admin.
Bonneville Power Admin.

Illinois Power Company
Highland, City of
Breese, City of
Ladd, City of
Opiesby, City of
Peru, City of
Princeton, City of
Carlyle, City of
Freeburg, City of
Mascoutah, City of
Waterloo, City of
Farmer City, City of

Indiana & Michigan Electric Company
Richmond Power & Light Company
Tennessee Valley Authority
Auburn, City of
Avilla, City of
Bluffton, City of
Columbia City, City of
Garrett, City of
Gas City, City of
Mishawaka, City of
New Carlisle, Town of
Niles, City of
Sturgis, city of
Warren, Town of
South Haven, City of
Indiana Municipal Power Agency

Interstate Power Company
Alta Vista, City of
Bellevue, City of
Fairbank, City of
Fredericksburg, City of
Grafton, City of
Guttenberg, City of
Independence, City of
Lawler, City of
McGregor, City of
Readlyn, City of
Rushford, City of
Sabula, City of
St. Charles, City of
Strawberry Point, City of
Truman, City of
Windom, City of

Iowa Electric Light and Power Co.
Anita, City of
Burt, City of
Dike, City of
Dysart, City of
Grand Junction, City of
Hopkinton, City of
Long Grove, City of
Maquoketa, City of
Marathon, City of
Ogden, City of
Panora, City of
Preston, City of
Sibley, City of
Stanhope, City of
State Center, City of
Story City, Ctiy of
Tipton, City of
Traer, Ctiy of
Vinton, City of
West Liberty, City of
Whittemore, City of

Iowa-Illinois Gas and Electric Co.
Buffalo, Town of
Eldridge, Town of
Callender, Town of

Iowa Power and Light Company
Carlisle, Town of
Neola, City of
Indianola, City of
Montezuma, City of

Iowa Public Service Company
- Applington, City of
- Auburn, City of
- Denver, City of
- Easterville, City of
- Hudson, City of
- Livermore, City of
- Pocahontas, City of
- Rockford, City of
- Sergeant Bluff, City of
- Breda, City of
- Fonda, City of
- Lake View, City of
- Wall Lake, City of

Iowa Southern Utilities Company
- Seymour, City of
- Afton, City of
- Orient, City of
- Danville, City of
- New London, City of
- Mt. Pleasant, City of
- Bloomfield, City of

Jersey Central Power and Light
- Butler Borough
- Lavallette Borough
- Pemberton Borough
- Seaside Heights Borough

Kansas City Power & Light Company
- Independence, City of (MO)
- Gardner, City of (KS)
- Prescott, City of (KS)
- Salisbury, City of (MO)
- Higginsville, City of (MO)
- Slater, City of (MO)
- Pomona, City of (KS)
- Board of Public Utilities
- Marshall, City of (MO)

Kansas Gas and Electric Company
- Arcadia, City of
- Arma, City of
- Bluemound, City of
- Bronson, City of
- Elsmore, City of
- Erie, City of
- Girard, City of
- Haven, City of
- Laharpe, City of
- Moran, City of
- Mt. Hope, City of
- Mulberry, City of
- Oxford, City of
- Savonburg, City of

The Kansas Power and Light Company
- McPherson Board of Public Utilities

Kentucky Power Company
- American Municipal Power Ohio Company
- Vanceburg Electric System
- Tennessee Valley Authority
- Olive Hill, City of

Kentucky Utilities Company
- Bardwell, City of
- Madisonville, City of
- Nicholasville, City of
- Providence, City of
- Bardstown, City of
- Frankfort, City of
- Paris, City of
- Falmouth, City of
- Barbourville, City of
- Corbin, City of
- Benham, City of
- Tennessee Valley Authority

Lockhart Power Company
- Union, City of

Long Island Lighting Company
- Freeport, Village of

Louisiana Power & Light Company
- Lafayette, City of
- Ruston, City of
- Vidalia, City of
- Houma, City of

Madison Gas and Electric Company
- Wisconsin Public Power Inc., System

Maine Public Service Company
- Houlton Water Company
- Vanburen Light & Power Company
- New Brunswick Electric Power Commission

Maine Electric Power Company, Inc.
- New Brunswick Electric Power Commission

Maine Yankee Atomic Power Company
- Ashburnham, City of
- Boylston, City of
- Braintree, City of
- Chicopee, City of
- Danvers, City of
- Georgetown, City of
- Hingham, City of
- Holyoke, City of
- Hudson, City of
- Hull, City of
- Ipswich, City of
- Littleton, City of
- Marblehead, City of
- Middleton, City of
- Paxton, City of
- Peabody, City of
- Shrewsbury, City of
- Sterling, City of
- Taunton, City of
- Templeton, City of
- Wakefield, City of
- West Boylston, City of
- Westfield, City of

Massachusetts Electric Company
- Hingham, Town of
- Peabody, City of
- Paxton, Town of

MDU Resources Group, Inc.
- Lincoln Electric System
- Nebraska Public Power District
- Omaha Public Power District
- Western Area Power Admin.

Metropolitan Edison Company
- Goldsboro Borough
- Lewisberry Borough
- Middletown Borough
- Royalton Borough

Michigan Power Company
- Paw Paw, Village of
- Dowagiac, City of

Minnesota Power & Light Company
- Aitkin, City of
- Biwabik, City of
- Brainerd, City of
- Buhl, City of
- Ely, City of
- Gilbert, City of
- Grand Rapids, City of
- Hibbing, City of
- Keewatin, City of
- Mt. Iron, City of
- Nashwauk, City of
- Pierz, City of
- Proctor, City of
- Randall, City of
- Two Harbors, City of
- Virginia, City of
- Nebraska Public Power District
- Omaha Public Power District

Montana Power Company
- Burbank Public Service
- Anaheim, City of
- Glendale, City of
- Los Angeles Department of Water and Power
- Pasadena City Light

Monongahela Power Company
- Philippi, City of
- New Martinsville, City of

Mt. Carmel Public Utility Company
- Allendale Municipal, Village

Montaup Electric Company
- Middleboro Municipal Gas & Electric Department
- Braintree Electric Light Dept.
- Taunton Municipal Lighting Plant
- North Attleboro Electric
- Connecticut Municipal Electric Energy Cooperative

Nantahala Power and Light Company
- Highlands, Town of

New England Power Company
- Burlington, City of
- Groveland, Town of
- Hudson, Town of
- Littleton, Town of

Niagara Mohawk Power Corporation
- Connecticut Municipal Electric Energy Cooperative

Northern Indiana Public Service Company
- Brookston, Town of
- Chalmers, Town of
- Rensselaer, City of
- Argos, Town of
- Bremen, Town of
- Etna Green, Town of
- Kingsford Heights, Town of
- Walkerton, Town of
- Winamac, Town of

Northern States Power Company
- Lincoln Electric System
- Muscatine Power & Water
- Nebraska Public Power District
- Omaha Public Power District
- Southern Minnesota Municipal Power Agency
- Ada, City of
- Anoka, City of
- Arlington, City of
- Brownton, City of
- Buffalo, City of
- Chaska, City of
- Delano, City of
- East Grand Forks, City of
- Fairfax, City of
- Glencoe, City of
- Janesville, City of
- Kasota, City of
- Kasson, City of
- Kenyon, City of
- Lake Crystal, City of
- LeSueur, City of
- Madelia, City of
- Melrose, City of
- New Ulm, City of
- North St. Paul, City of
- Olivia, City of
- Shakopee, City of
- Sauk Centre, City of
- Sleepy Eye, City of
- Winthrop, City of

Northwestern Public Service Company
- Bryant, City of
- Langford, City of
- Miller, City of

Ohio Edison Company
- Am. Municipal Power- Ohio

Ohio Power Company
- Tennessee Valley Authority
- Deshler, Village of
- Arendia, Village of
- Bloomdale, Village of
- Carey, Village of
- Cygnet, Village of
- Greenwich, Village of
- Ohio City, Village of
- Plymouth, Village of
- Republic, Village of
- Sycamore, Village of
- Wharton, Village of
- Sheloh, Village of
- Wapakoneta, Village of
- Bryon, Village of
- St. Clairsville, Village of

Oklahoma Gas and Electric Company
- Clarksville Light & Water
- Paris, City of
- Geary, City of
- Manchester, City of
- Mannford, City of
- Newkirk, City of
- Orlando, City of
- Perry, City of
- Prague, City of
- Stillwater, City of
- Stroud, City of
- Tecumseh, City of
- Tonkawa, City of
- Watonga, City of
- Oklahoma Municipal Power Authority

Otter Tail Power Company
- Southern Minnesota Municipal Power Agency
- Nebraska Public Power District
- Omaha Public Power District
- Muscatine Power and Water
- Breckenridge, City of
- Newfolden, City of
- Nielsville, City of
- Shelly, City of

Pennsylvania Electric Company
- Summerhill Borough
- Berlin Borough
- East Conemaugh Borough
- Hooversville Borough
- Smethport Borough
- Girard Borough

Pennsylvania Power & Light Company
- Blackely Borough
- Catawissa Borough
- Duncannon Borough
- Ephrata Borough
- Hatfield Borough
- Kutztown Borough
- Lansdale Borough
- Lehighton Borough
- Mifflinburg Borough
- Olyphant Borough
- Perkasie Borough
- Quakertown Borough
- St. Clair Borough
- Schuylkill Haven Borough
- Watsontown Borough
- Weatherly Borough

Pennsylvania Power Company
- Ellwood City, City of
- Grove City, City of
- New Wilmington, City of
- Wampum, City of
- Zelienople, City of

Potomac Edison Company
- Thurmont, Town of
- Williamsport, Town of
- Hagerstown, City of

Public Service Company of Colorado
- Burlington, City of
- Center, City of
- Glenwood Springs, City of
- Julesburg, City of

Public Service Co. of Indiana, Inc.
- Advance, City of
- Bainbridge, City of
- Brooklyn, City of
- Coatesville, City of
- Dublin, City of
- Dunreith, City of
- Edinburg, City of
- Hagerstown, City of
- Knightstown, City of
- Ladoga, City of
- Lewisville, City of
- Montezuma, City of
- New Ross, City of
- Pittsboro, City of
- Rockville, City of
- South Whitley, City of
- Spiceland, City of
- Straughn, City of
- Throntown, City of
- Veedersburg, City of
- Waynetown, City of
- Williamsport, City of
- Indiana Municipal Power Agency

Public Service Co. of New Hampshire
- Ashland, Town of
- New Hampton, Town of
- Wolfsboro, Town of

San Diego Gas & Electric Company
- Anaheim, City of
- Riverside, City of
- Salt River Project

Sierra Pacific Power Company
- Falion, City of

South Carolina Electric & Gas Company
- McCormick, Town of
- Winnsboro, Town of
- Orangeburg, City of

Southern California Edison Company
- Los Angeles Department of Water and Power
- Riverside, City of
- Anaheim, City of
- Azusa, City of
- Colton, City of
- Banning, City of
- Vernon, City of
- Pasadena, City of
- Glendale, City of
- Salt River Project

Southwestern Electric Power Company
SiloamSprings, City of
Bentonville, City of
Hope, City of

Southwestern Public Service Company
Floydada, City of
Brownfield, City of
Tulia, City of
Lubbock Power & Light

Tampa Electric Company
Lakeland, City of
Ft. Pierce, City of
Gainesville, City of
Homestead, City of
Jacksonville, City of
Kissimee, City of
Lake Worth, City of
New Smyrna Beach, City of
Orlando, City of
Sebring, City of
Seminole, City of
St. Cloud, City of
Stark, City of
Tallahassee, City of
Vero Beach, City of

Texas Utilities Electric Company
Bowie, City of
Bridgeport, City of
Brownsville Public Utilities Board
Austin, City of
San Antonio City Public Service Board
Lower Colorado River Authority
Texas Municipal Power Agency

The Toledo Edison Company
Bowling Green, City of
Bradner, City of
Custer, City of
Edgerton, City of
Elmore, City of
Genoa, City of
Haskins, City of
Montpelier, City of
Napoleon, City of
Oak Harbor, City of
Pemberville, City of
Pioneer, City of
Woodville, City of

Tucson Electric Power Company
M-S-R Public Power Agency
Arizona Power Pool Cooperatives Association

Union Electric Company
California, City of
Centralia, City of
Clarksville, City of
Farmington, City of
Fredericktown, City of
Hannibal, City of
Jackson, City of
Kahoke, City of
Kirkwood, City of
Linneus, City of
Malden, City of
Marceline, City of
Owensville, City of
Perry, City of
Rolla, City of
St. James, City of
West Point, City of

The Union Light, Heat and Power Co.
Williamstown, City of

Upper Peninsula Power Company
Baraga, Village of
Negaunee, City of
L'Anse, City of
Gladstone, City of
Escanaba, City of

Utah Power & Light Company
Bountiful, City of
Helper City, City of
Price, City of
Blanding City, City of
Manti, City of
St. George, City of
Burbank, City of
Glendale, City of
Pasadena, City of
Riverside, City of
Salt River Project
Department of Energy - WAPA

Utilicorp United Inc.
Odessa, City of
El Dorado Springs, City of
Liberal Municipal Light Company
Rich Hill, City of
Harrisonville, City of
Galt, City of
Gilman City, City of
Pleasant Hill, City of

Virginia Electric Power Company
- Blackstone, Town of
- Culpepper, Town of
- Elkton, Town of
- Franklin #1, City of
- Harrisonburg, City of
- Irongate, Town of
- Manassas #1, City of
- Wakefield, City of

Washington Water Power Company
- Anaheim Public Utilities
- Burbank, City of
- Chewelah, City of
- Los Angeles Department of Water and Power
- Northern California Power Agency
- Pasadena Water & Power Depart.
- Seattle City Light

West Penn Power Company
- Mont Alto Borough
- Chambersburg Borough
- Allegheny Electric Coop, Inc.

West Texas Utilities Company
- Coleman, City of
- Brady, City of
- Austin, City of

Western Massachusetts Electric Company
- Chester, Town of
- Russell, Town of
- Westfield, Town of

Wisconsin Electric Power Company
- Wisconsin Public Power, Inc.
- Cedarburg, City of
- Florence, City of
- Hartford, City of
- Jefferson, City of
- Lake Mills, City of
- New London, City of
- Oconomowoc, City of
- Slinger, City of
- Waterloo, City of
- Clintonville, City of
- Kiel, City of
- Oconto Falls, City of
- Shawano, City of

Wisconsin Power and Light Company
- Belmont, City of
- Benton, City of
- Black Earth, City of
- Brodhead, City of
- Columbus, City of
- Evansville, City of
- Footville, City of
- Gresham, City of
- Hazel Green, City of
- Hustisford, City of
- Juneau, City of
- Lodi, City of
- Mazomanie, City of
- Mount Horeb, City of
- New Glarus, City of
- Pardeeville, City of
- Plymouth, City of
- Prairie du Sac, City of
- Princeton, City of
- Reedsburg, City of
- Richland Center, City of
- Sauk City, City of
- Sheboygan Falls, City of
- Stoughton, City of
- Shullsburg, City of
- Sun Prairie, City of
- Wisconsin Dells, City of
- Wonewoc, City of

APPENDIX B

49 Responses and Project Evaluations
for SMUD's bid for dispatchable energy

SMFPSUM
[illegible]

30-Oct-87

SMUD RFP FOR POWER

SUMMARY OF PROPOSER'S RESPONSES AND PROJECT EVALUATION

DESCRIPTION			CAPACITY	DELIVERY			TRANS-	PRICE-1987 MILLS/KWH		EVALUATION	
NAME	TYPE	LOCATION	KW	BEGIN	DURATION	POINT	MISSION	FIRST YEAR PRICE	TEN YR AVERAGE	CATEGORY	COMMENT
BPA	UTILITY	PORTLAND, OR	100,000	10 / 87	10	CA - OR	YES	28.03	30.50	I	SUBJECT TO CALLBACK, PL88-553
FLAGG ENERGY	FOSSIL	VICINITY OF SACTO, CA	200,000	5 / 91	20	SMUD	YES	39.03	40.03	I	$1 MILLION GOOD FAITH DEPOSIT
CAL ALMOND GROWERS	BIOMASS	SACRAMENTO, CA	4,000	1 / 88	15	SMUD	YES	40.19	40.19	I	IN-SERVICE OFF-PEAK ONLY
FMN - SAC	COAL	VICINITY OF SACTO, CA	300,000	1 / 92	20	SMUD	YES	40.80	43.63	I	DEPENDS ON SITE
SABOR	FOSSIL	SACRAMENTO, CA	10,000	7 / 89	25	HEDGE	YES	41.94	42.46	I	
POPPY RIDGE PARTNERS	GAS	ELK GROVE, CA	1,200	10 / 87	15	SMUD	YES	43.00	50.00	I	IN-SERVICE
BOARDMAN #1	COAL	BOARDMAN, OR	61,000	1 / 88	30	CA-OR	NO	20.60	43.78	II	IN-SERVICE, LTIAP
DESERT POWER	COAL-GAS	MOJAVE DESERT, CA	400,000	90	30	OPEN	NO	33.10	43.04	II	
POSO CREEK	GAS	POSO CREEK, CA	12,100	7 / 88	10		NO	34.39	36.11	II	UNDER CONSTRUCTION
TACOMA STEAM PLANT #2	FOSSIL	TACOMA, WA	32,000	1 / 89	OPEN	CA-OR	NO	30.02	34.17	II	UNDER CONSTRUCTION, LTIAP
CENTRALIA	COAL	CENTRALIA, WA	60,000	1 / 88	OPEN	CA-OR	NO	37.80	37.80	II	IN-SERVICE, LTIAP
MONARCH	GAS	MARICOPA, CA	13,200	1 / 87	10		NO	37.80	33.30	II	IN-SERVICE
KARNAK	GAS	SUTTER COUNTY, CA	7,500	1 / 88	10		NO	38.40	38.14	II	
SIERRA PAC INDUSTRIES	BIOMASS	ANDERSON, CA	18,000	1 / 85	OPEN		NO	38.40	87.69	II	
CROW	COAL	HARDIN, MT	300,000	1 / 93	15	SIERRA OAKS	NO	38.60	38.90	II	
APACHE	COAL	COCHISE, AZ	60,000	1 / 88	5	MEAD, NV	NO	39.08	28.10	II	IN SERVICE
EL PASO ELECTRIC	UTILITY	EL PASO, TX	100,000	1 / 88	20	PALO VERDE	NO	40.33	39.17	II	IN SERVICE
ULTRA SW	COAL	SOUTHWEST USA	200,000	6 / 89	30		NO	42.00	42.00	II	
PYRAMID HILLS	GAS	KERN COUNTY, CA	44,000	7 / 89	20		NO	42.93	39.89	II	
DOW/CHANSOR	GAS	KERN COUNTY, CA	44,000	7 / 89	20		NO	42.93	39.89	II	
McVAN	GAS	KINGS COUNTY, CA	44,000	7 / 89	20		NO	42.92	39.89	II	
BERKELEY	GAS	BERKELEY, CA	23,000	8 / 87	30		NO	44.37	50.00	II	IN-SERVICE, BUY-IN $23 MILLION
AGNEWS	GAS	SANTA CLARA, CA	28,600	3 / 89	30		NO	44.78	50.99	II	BUY-IN $20 MILLION
MONTANA ENERGY RECOVERY	BIOMASS	MISSOULA, MT	38,000	1 / 88	15	ELVERTA	NO	44.78	41.03	II	
FIREBAUGH	GAS	NEAR FIREBAUGH, CA	300,000	12 / 90	80	HURLEY,	NO	46.50	64.20	II	
PG AND E	UTILITY	SAN FRANCISCO, CA	400,000	1 / 88	10	RANCHO SECO	YES	46.43	50.97	II	NOTE 1
MARMAC	GAS	OPEN	47,000	4 / 89	20	OPEN	NO	50.03	64.66	II	
AII - MSW	BIOMASS	SACRAMENTO, CA	50,000	10 / 88	OPEN	HURLEY	YES	54.94	62.20	II	
AII - FOREST PRODUCTS	BIOMASS	EL DORADO COUNTY,CA	20,000	10 / 89	OPEN	LAKE	YES	54.94	62.20	II	
WAMBO BAR	HYDRO	YUBA RIVER, CA	83,000	1 / 90	[illegible]	RANCHO SECO	NO	55.90	82.70	II	
BOHEMIA - LINCOLN	BIOMASS	LINCOLN, CA	8,000	1 / 88	OPEN		NO	64.11	76.17	II	IN-SERVICE
DEVIL'S NOSE	HYDRO	MOKELUMNE RIVER, CA	131,200	7 / 90	50	RANCHO SECO	NO	64.10	70.03	II	
LAVA MOUNTAIN	GEO	RANDSBURG, CA	260,000	8 / 91	35		NO	70.02	71.00	II	
BEAR CANYON	GEO	GEYSERS KGRA, CA	20,000	1 / 89	30	GPPL	NO	70.61	78.20	II	UNDER CONSTRUCTION
SOFAR	HYDRO	EL DORADO COUNTY, CA	134,200	1 / 91	40	CAMINO	YES	100.00	112.00	II	
CA, GENERAL SERVICES		VARIOUS LOCATIONS, CA								III	NOTHING SPECIFIC
EUGENE WEB		OREGON	100,000				NO			III	POTENTIAL DEVELOPMENT
CA ALMOND GROWERS	BIOMASS	SACRAMENTO, CA	2,000	1 / 90	12 YRS	SMUD	YES			III	POTENTIAL DEVELOPMENT, LTIAP
BOHEMIA - ROCKLIN	BIOMASS	ROCKLIN, CA	10,000				NO			III	POTENTIAL DEVELOPMENT, LTIAP
WASHINGTON WATER POWER	COAL	SPOKANE, WA	100,000	1 / 90	30 YRS		NO			III	PENDING FURTHER STUDY
GARDEN BAR	HYDRO	BEAR RIVER, CA	220,000				NO			IV	
BELRIDGE	GAS	KERN COUNTY, CA	240,000				NO			IV	
SAN ARDO	GAS	KERN COUNTY, CA	240,000				NO			IV	
MERCHANTS REFRIG.	GAS	MODESTO, CA	42,000				NO			IV	
DEL MONTE	GAS	MODESTO, CA	42,000				NO			IV	
BPA	UTILITY	PORTLAND, OR	1,300,000	1 / 88	10 YRS	CA - OR	NO	28.03	30.60	IV	SUBJECT TO CALLBACK, PL88-603
SO. CALIF. EDISON	UTILITY	ROSEMEAD, CA	400,000	1 / 88	OPEN	MIDWAY	NO	38.70	40.00	IV	IN-SERVICE
MONTANA POWER	COAL	COLSTRIP, MT	310,000	1 / 88	33	CA - OR	NO	38.91	38.40	IV	IN-SERVICE, LTIAP
PSC OF NEW MEXICO	UTILITY	ALBUQUERQUE, NM	100,000	1 / 88	10	PALO VERDE	NO	38.40	40.12	IV	IN-SERVICE

1. PRICES CONDITIONED ON TERMINATION OF CURRENT AGREEMENT AND PRICES INCLUDE $14.00 PER KW-YEAR TRANSMISSION CHARGES

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SRFPSUM
                          SMUD RFP FOR POWER
              ----------------------------------------------------
              SUMMARY OF PROPOSER'S RESPONSES AND PROJECT EVALUATION


COLUMN HEADINGS
---------------
Project Description
     Name: Project identifier
     Type: Utility or fuel type
     Location: Project location
Capacity: As stated in proposal - kilowatts
Delivery:
     Begin: Date of first delivery - month/year
     Duration: Time available - years
     Point: Point of delivery
Transmission:
     Yes - Power to be delivered to SMUD system
     No - Third party arrangements will be necessary
Price:
     First year of Delivery
     Ten Year Average
     Prices deflated to 1987 $ at 4.5 percent per year.
     Fuel clauses are adjusted 9.75 percent per year.
Evaluation Category :
     I - Proposal complies with resolution 87-7-12;
    II - Proposal is responsive with exceptions to resolution;
   III - Proposal not definitive but positively interested;
    IV - Subject of Prior Negotiations
LTIAP : Subject to Long Term Intertie Access Policy
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APPENDIX C

Excerpts from the Testimony of Michael McDonald
General Manager, Northern California Power Agency
Before the Assembly Utilities and Commerce Committee
California State Legislature
October 6, 1987

Turning now to NCPA experiences with PG&E, our history also has been one where PG&E sought to maintain a stranglehold on our development as a competitive entity. Even before the formulation of NCPA, its members were denied access to low cost federal power by PG&E's refusal to wheel. Since its formation, NCPA has been denied the benefits of membership in the California Power Pool and has been denied access to the existing N.W. Intertie. When, despite PG&E, NCPA finally completed its first electric generating unit, PG&E refused to carry out its obligations under the license conditions it had accepted from the Nuclear Regulatory Commission (and the Department of Justice) to provide the necessary wheeling arrangements. Despite years of effort on NCPA's part, PG&E refused to negotiate a fair agreement or even to file its own version of an agreement with the Federal Energy Regulatory Commission so that it could be factually determined whether PG&E's offer was "just and reasonable or not". It was only when, at a Washington D.C. meeting, the NRC Director of Enforcement told PG&E that if the meeting ended without PG&E changing its position, he would hold PG&E in violation of its license conditions and impose a substantial daily penalty, that a procedure was proposed and agreed upon under which PG&E and NCPA finally did negotiate an acceptable Interconnection Agreement. However, since NCPA was losing some $25,000 - $30,000 per day during each day of the months of negotiations, and since NCPA was basically seeking arrangements that PG&E did not want, it should be apparent that the final agreement reached is not a model of fairness.

NCPA's experience under that agreement has been checkered. At times it has seemed that PG&E had moderated its historic approach and at other times PG&E has appeared to be on the verge of declaring war. We still have not received, in our view, transmission to which we are entitled under our agreement. The examples of PG&E withholding transmission service are numerous and wide spread. PG&E has denied NCPA timely access to needed transmission for nearly all of its generation projects, starting with our first geothermal plant prior to the Interconnection Agreement. At the present time, PG&E is refusing to accept the NCPA combustion turbines as firm resources on the NCPA system, stating that the turbines do not have firm transmission, when firm transmission capacity is in fact available and has in fact been available.. The NCPA Combustion Turbine Project has operated for two summer peak seasons serving NCPA members firm load and at times supporting the PG&E Bay Area system without any transmission service problems; that is, except for encountering a $12 million contested power bill from PG&E. NCPA members did operate and use the combustion turbines without regard to PG&E's refusal to accept the combustion turbines.

Further, PG&E has repeatedly refused to implement NCPA transmission requests under our Interconnection Agreement, even when NCPA has agreed to mitigate all of PG&E's concerns. NCPA has offered to perform joint studies, accept temporary conditional service, pay wheeling rates, and provide the capital necessary to upgrade or construct new facilities to provide transmission service. PG&E has cited unsupportable and self-serving reasons for refusing to honor the commitments they agreed to in the Interconnection Agreement, such reasons as "inadequate information provided", "contract interpretation snags", "policy considerations", etc.

Today, PG&E is withholding 10 MW of additional firm transmission service (out of a transmission system capability of 2,150 MW) for the recent rerate of NCPA's Geothermal Plant No. 2. Even though PG&E's operating personnel approved the rerate and in spite of their acknowledgement that transmission is available, they have taken the position that the requested transmission service should be arranged through the Geysers Public Power Line (GPPL), a separate siting case now before the California Energy Commission.

GPPL is a joint venture transmission project between NCPA and the City of Santa Clara, the Modesto Irrigation District, and SMUD. The project will transmit power from existing geothermal plants now owned by NCPA and SMUD and will transmit the electrical output of the now under-construction CCPA power plants jointly being developed by MID, the City of Santa Clara, and SMUD. All of the geysers facilities are of critical importance to public power in Northern California. These facilities all provide a measure of competition for PG&E and, interestingly enough, the unfriendly consolidation of SMUD with PG&E threatens the very existence of GPPL and CCPA, and apparently transmission for the undisputed rerate of Geothermal Plant No. 2.

PG&E's actions regarding the GPPL project serve as an excellent example of their systematic denial of transmission access for NCPA. For at least two of the GPPL joint owners, NCPA and the City of Santa Clara, the GPPL Project is contractually mandated by PG&E in order for NCPA and the City of Santa Clara to receive temporary firm transmission for their existing Geothermal Plant No. 3.

In an approach reminiscent of its tactics in 1940 (when PG&E, seeking a hydroelectric license for itself, asserted a lack of capacity in the area while simultaneously opposing a CVP plant on the ground that there was excess capacity), PG&E currently seems to be simultaneously asserting to us that NCPA is obligated to build this transmission line to receive capacity credit for an existing resource while telling the Energy Commission that the line should not be permitted because it is not needed since PG&E

has enough transmission capacity for all users. To that end, PG&E has also broken off all negotiations with the joint owners to provide a negotiated alternative to GPPL, through use of their available capacity.

In a brief NCPA filed before the Federal Energy Regulatory Commission, in January 1982, (in a case not yet decided by that Commission) we devoted over 300 single spaced pages largely to a recital of what PG&E had done and was doing and why PG&E's acts were contrary to law and the public interest. It would be difficult even to summarize that presentation, and I have not really attempted to do so. Yet I can indicate that in 1972, the United States Department of Justice concluded that the evidence presented to it warranted the conclusion that "PG&E has acted in such a way as to establish and preserve the highest possible degree of monopoly power in, and control over, electric generation and transmission resources located in Northern and Central California" and that PG&E "has pursued a consistent course of conduct during this period which has had the effect of: (1) foreclosing the ability of municipal and cooperative utilities within its service area to obtain access to numerous sources of bulk power supply, and (2) precluding the independent development of generating capacity by these municipalities and cooperative utilities." That pretty well sums it up.

The CHAIRMAN. Thank you.
Mr. Cooper.

STATEMENT OF DR. MARK N. COOPER, DIRECTOR OF RESEARCH, CONSUMER FEDERATION OF AMERICA

Dr. COOPER. Thank you, Mr. Chairman.

The Consumer Federation of America firmly believes that competition is the consumer's best friend. Yet, we have learned in a number of other industries that deregulation or regulatory reform without vigorous competition can be a disaster for consumers.

First, market power in deregulated industries and price discrimination has been practiced to a far greater extent than that theory predicted or efficiency can justify.

Second, anti-competitive practices pervade the deregulated industries, including misleading advertising, predatory pricing and denial of competitive access in the marketplace, as well as cross-subsidization and unjustified cost shifting in partially regulated industries.

Third, lower density markets, rural and small-town America. They are a particularly a heavy burden in terms of price increases, the exercise of market power and the decline of service.

This does not mean that policymakers should reject regulatory reform. It does mean that they should proceed cautiously. The benefits of regulatory reform must be very clear and steps must be taken in advance to prevent abuse.

In the electric utility industry there is no doubt that there has been a major regulatory failure. Hundreds of billions of dollars of excessively costly plants have been built and put into the rate base at the expense of consumers. The implementation of PURPA in some respects is a microcosm of the problems of regulation. The consumer has not enjoyed the economic benefits of the development of alternative or more efficient technologies under the approach to PURPA implementation taken in some States. The economic rents generated by declining prices for fossil fuels and excessively costly nuclear power plants have not been passed on to residential consumers. Instead rigid pricing schemes and contractual commitments have transferred those rents to third party providers.

We believe that a bidding system can protect residential consumers from the extraction of excessive rents by suppliers while allowing economically efficient third party providers to compete in the marketplace. We believe that improvements in PURPA do not require modifications in other institutional and organizational structures within the industry. If changes in transmission or organizational policy are necessary, they should be undertaken as separate policy proceedings.

The public service commissions that would oversee the PURPA modified implementation must be the central authority in the bidding process. When one examines the concerns expressed by utilities or third parties about how the bidding might be biased against them, how there might be an uneven playing field, it becomes clear that the key element in this concern is the monopoly over distribution that the utility has and the state public service commission regulates.

Bidding we believe must be part of a least-cost planning process. It has taken a decade or more to begin the movement toward vigorous comprehensive least-cost planning. There is no external constituency that can effectively bid conservation. This is the utility's job under the scrutiny of the public service commission.

The public service commission must also take a clear position on the nature of risk to which rate payers and stockholders or suppliers will be exposed. First, utility bids or target prices, when made under rate base treatment—and we think those are a legitimate part of the bidding process—must not be cost-plus contracts. The risk of construction cost overruns must fall on stockholders as they will for owners of third party power.

Second, the risk of fuel price changes should be treated in an evenhanded manner. The public service commission must establish a single policy for fuel price escalation that applies to all bidders, utility included.

Third, financing differences should not be allowed to determine the outcome of the bidding process. Specification of bid equity ratios is entirely appropriate since excessively leveraged projects may be deemed too risky because they show a lack of equity commitment. Utilities should be allowed to match third party debt equity ratios, and violation of specified ratios should be considered a violation of the contract and subject to commercial penalties.

Fourth, the public service commission should also set policy goals for reliability. It is entirely reasonable for commissions to set limits on specific categories of power if they find that they are inherently less reliable either technically or organizationally. But these guidelines should not be the result of anecdotes or folklore. They should be set in formal proceedings where evidence is heard and conscious policy decisions are made. We have to get the facts on reliability onto the table and into the process in a formal way.

There is no doubt that public service commissions will exercise great ingenuity in tailoring unique state-specific solutions to these and other problems. These are issues, in fact, that we believe that should be dealt with if no PURPA reform were necessary and none were being proposed. But because PURPA implementation has gone astray in some States, FERC should take this opportunity to move the industry incrementally in a pro-competitive, pro-consumer direction with public service commissions being encouraged to take a more vigorous role in implementing electric utility policy in their states.

Competition, deregulation and regulatory reform are great in theory, but they must not mean simply a switch from the regulation of monopoly power to the unregulated exercise of market power. And we believe that absent open access to transmission, that danger becomes very great. So, we would like to see a very vigorous, clear policy process on transmission. We believe the outcome would be for greater transmission access.

We believe that regulation which gives competitive forces a freer hand and allows incentives to play a larger role can achieve the majority of the efficiency gains that are available in the electric utility industry, an industry which still possesses significant monopoly characteristics. And we believe that deregulation need not expose consumers to unfair or unnecessary risk.

Thank you, Mr. Chairman.

[The prepared statement of Dr. Cooper follows:]

CFA Consumer Federation of America

TESTIMONY OF

DR. MARK N. COOPER

DIRECTOR OF RESEARCH

CONSUMER FEDERATION OF AMERICA

before the

COMMITTEE ON ENERGY AND NATURAL RESOURCES

U.S. SENATE

on

ADMINISTRATIVE MODIFICATIONS IN THE IMPLEMENTATION OF THE PUBLIC UTILITY REGULATORY POLICIES ACT OF 1978

FEBRUARY 2, 1988

1424 16th Street, N.W., Suite 604 • Washington, D.C. 20036 • (202) 387-6121

Mr. Chairman and Members of the Committee,

My name is Dr. Mark N. Cooper. I am Research Director of the Consumer Federation of America (CFA). CFA is composed of 200 consumer, senior citizen, low-income, union, farm, public power and cooperative groups representing more than 35 million people.

Our member groups are extremely active on electric utility issues at the state level and CFA has testified before Congress and various federal agencies on basic issues of federal policy toward utilities. We greatly appreciate the opportunity to appear before the committee today to share our views on the general principles of regulation in the electric utility industry and reform of the implementation of the Public Utility Regulatory Act of 1978 (PURPA).

These hearings are most appropriate at a time when it seems clear that plain old, cost-plus regulation as it was practiced in the electric utility industry in the past decade is due for an overhaul. The breakdown of that old approach to electric utility regulation is symbolized poignantly in the bankruptcy of Public Service of New Hampshire, the first major utility bankruptcy in about half a century.

Unfortunately for policymakers, it is by no means as clear which reforms would be in the public interest. Congress and the Federal Energy Regulatory Commission should move very carefully in this area. As consumers have learned in a number of other formerly regulated industries, sometimes the deregulatory cure can be worse than the regulatory disease. Seabrook, Public

Service of New Hampshire and nuclear power are a specific plant, a specific utility and a specific technology whose foibles should not be allowed to stampede policymakers into ill-considered action.

In my testimony today I begin by sounding a note of caution with a review of recent deregulatory experiences in other industries. I then review the problems with regulation of the electric utility industry. I suggest some broad principles for regulatory reform in the electric utility industry and then turn to recent proposals for changes in the implementation of PURPA.

DEREGULATION: THEORY VERSUS REALITY

Sound regulatory reform must be based on a clear understanding of industry structure and a sensible analysis of what the real problem is. It must not be based on pure speculation or blind faith in the market.

Any freshman economics major can explain the benefits of deregulation. After he or she assumes the existence of competition, a beautiful graph explaining efficiency gains and increases in consumer surplus can be whipped up in an instant. But in the real world, one cannot simply assume the existence of competition. One must observe whether it exists, nurture it in some cases, protect and preserve it in others, and admit that there are some instances where it won't work. If it does not exist, the beautiful graph of efficiency gains and increases in consumer surplus turns into a nightmare of exorbitant prices and abusive business practices.

Consumer and public interest groups have always been vigorous supporters of increased competition in the economy. They are strong advocates of aggressive antitrust enforcement. They led the charge for reduced regulation and increased competition in telecommunications, the airline industry and trucking.

The reason for this support is straightforward. Consumers are the primary beneficiaries of vigorous and effective competition. The rigors of competition not only compel producers to be innovative and efficient, they also force them to pass through the bulk of the benefits of lower prices and higher quality to consumers. However, just as consumer and public interest groups recognize that consumers can reap the potential benefits of vigorous competition, they are also well aware that they will bear the costs if competition is supposed to exist, but does not. This pragmatic view of competition has been reinforced by the effects of the deregulation of a number of industries.

Industries such as airlines and long distance telecommunications looked like easy cases for procompetitive, deregulatory policies because the underlying economics seemed so favorable to competition. Once the bottleneck facility -- the local monopoly -- was isolated from other aspects of telecommunications, there did not appear to be a basis for natural monopoly in long distance telecommunications. Similarly, with access to the bottleneck facility in the airline industry --

landing slots -- allocated by the government, there was no reason to believe that competition could not be vigorous. In both cases, however, developments did not meet expectations in significant ways.

Long distance telecommunications competition has proven feeble, with the former monopolist preserving a huge market share and competitors sustaining large economic losses. Price competition all but disappeared with the break-up of the telephone company. In the airline industry, price competition has been highly selective. High levels of concentration appeared on a large number of routes. Patterns of anti-consumer business practices have permeated the industry.

In both cases, the underlying economics may have been misjudged. In telecommunications, new technologies -- fiber optics and digital switches -- may have recreated the conditions of natural monopoly, even in long distance. In the airline industry, the apparent mobility of some physical capital (airplanes) may have led to an underestimation of the importance of networks and ownership of gate space.

The need for careful analysis is all the more important in transmission-based network industries, like electricity and natural gas. In these industries there remains a core of unquestionably natural monopoly characteristics and facilities. How the monopoly core is handled is crucial. The marketing of these commodities entails complex organizational arrangements which are time and place specific (as in the airline industry).

Rules for contracting and other transactional arrangements are a second crucial concern. Either of these characteristics -- forcefully evident in the electric utility industry -- could create significant barriers to effective competition.

Deregulation of the railroad industry teaches a different, but equally important, lesson. There was never any doubt that railroads would continue to exercise considerable market power over specific commodities in specific areas -- as there should be no doubt in the electric utility industry.

Recognizing this, Congress preserved residual regulation of the enduring monopoly power of the railroads. Provision was made both for ratemaking in the new mixed competitive/monopoly environment and for competitive access to the bottleneck facilities. These regulatory problems have strong similarities to the issues raised in deregulation of electric generation. In the railroad industry, they have not been satisfactorily resolved from the consumer point of view. Competitive access has been denied and price discrimination has been pervasive because the Congressional edict was ambiguous and the regulatory agency has sought to carry deregulation far beyond the limits justified by the economic structure.

Thus there is a nexus of problems that arises when deregulation occurs and competition does not fill the void. The failure of competition to materialize means that market power exists. This market power results in extensive price discrimination.

In other cases, the phony threat of competition is used by certain classes of customers to extract rate reductions, when they have little real possibility of taking their demand off the system. The utility or regulatory body responds to this threat by lowering rates for the threatening bypasser and raising rates for captive customers.

Utilities may engage in similar actions. Raising the threat of bypass, they may seek radical restructuring of rates to forestall competitive pressures. They may also seek large rate increases because of a putative increase in the riskiness of the enterprise. In short, bypass blackmail combines with phony competition to allow a great deal of unjustified cost shifting.

Low density areas are particularly vulnerable to this problem since the small volume of traffic stimulates less competition. The economics of low density markets will not support multiple competitors providing similar levels of service as under regulation. Competitive forces are weakest and residual regulation is most crucial to consumers in these markets.

I have submitted a copy of recent testimony which presents empirical evidence from the airline, railroad and telecommunications industries to demonstrate that these are very real problems about which consumers are properly concerned.

THE FAILURE OF ELECTRIC UTILITY REGULATION AND PROPOSALS FOR REGULATORY REFORM

Because the dangers and costs of deregulation have become so apparent, the public and policymakers must start from a clear demonstration of a pressing problem with regulation as they consider regulatory reform. The first question that must be asked is, how bad has regulation of electric utilities been?

An appropriate starting point is a most remarkable quote from the cover of a well known magazine.

> The failure of the nuclear power program ranks as the largest managerial disaster in business history, a disaster on a monumental scale. The utility industry has already invested $125 billion in nuclear power, with an additional $140 billion to come before the decade is out, and only the blind, or the biased can now think that most of the money has been well spent. It is a defeat for the U.S. consumer and for the competitiveness of U.S. industry, for the utilities that undertook the program and for the private enterprise system that made it possible.

This quote is not from any raving consumer publication. It is from the cover of the February 11, 1985 edition of Forbes Magazine, which styles itself a tool of capitalism. Although Forbes has only recently discovered the magnitude of the problem facing the utility industry, hundreds of consumer groups have been cautioning and complaining for three, five, even ten years about the disaster that was being created.

In spite of the obviousness of the managerial failure and our early warnings, the utility industry insists that every penny, including unprecedentedly high rates of return, must be paid. That intransigence will ensure a radical restructuring of the process of decisionmaking in the industry.

First, as the watershed year of 1980 recedes farther into the past, it becomes more and more difficult for utilities to hide their mismanagement.

Second, as larger second units come onto line the pure excess involved becomes blatantly apparent.

Third, there is a huge intergenerational misfit between the costs and benefits of the plants. It is only a slight oversimplification to say that not one of the nuclear units which will come on line in the next five years will produce a net economic benefit for consumers until after the turn of the century. A large number of them will generate huge economic losses. Ironically, the industry insists that the stockholders get their money out in the first decade, when these plants have least economic value.

It is this monumental institutional failure that has created the impetus for change. The failure of electric utility regulation creates a clash between two fundamentally different concepts for evaluating industry performance -- the prudency concept and the economic concept.

The prudency concept to which the industry clings says, simply, that it is only decisionmaking, not actual decisions, that matter. As long as the proper inputs were used and the decisionmaking process was rational, the outcome does not count. The industry expects to be rewarded for prudence, no matter how disastrous the result.

The economic concept underlying competitive markets works in exactly the opposite direction. It stresses outcomes. Inputs are irrelevant. It is results that are rewarded or penalized in the market.

The key principle underlying this economic concept is that in a competitive market a firm with excess or excessively costly capacity does not earn a full rate of return on that capacity. In the short run, the firm would produce and sell goods as long as the price covered out-of-pocket (directly variable) costs and made some contribution to fixed costs. At the margin, no return on fixed costs would be earned. In the long run, the uneconomic capacity would be eliminated. Losses occur but they are transitional. To put it bluntly, the market has no mercy on mistakes -- whether or not they are retrospective.

The reason that companies with excess capacity cannot earn a full rate of return is that, in a competitive situation, they cannot force consumers to pay a price that is above the efficient costs of production. Competition will quickly erode any effort to set prices above efficient levels.

The implementation of PURPA is a microcosm of these problems in regulation. The consumer has not enjoyed the economic benefits of the development of alternative or more efficient technologies under the approach to PURPA implementation taken in some states. PURPA has taken on the worst aspects of cost-plus regulation. The economic rents generated by declining prices for fossil fuels and excessively costly nuclear plants have not been shared with residential consumers. Instead, rigid price schemes and contract commitments have transferred those rents to third party providers.

GENERAL PRINCIPLES FOR REGULATORY REFORM

A series of proconsumer principles for reinvigorated regulation of electric utilities can easily be outlined on the basis of this reading of the regulatory failure.

First, we insist on a simple economic principle of net benefits. Investment decisions must be proven to make consumers better off compared to some reasonable alternative before they are allowed to earn a return.

Second, collection of revenues should be allowed when benefits are realized and only in proportion to the magnitude of the benefits. The magnitude of the benefits should be determined by the economically used and useful nature of the investment.

Third, the economic value of used and useful investments will be set by reasonable estimates of avoided costs and these should be market-based where possible. You cannot collect 15 cents per kilowatt hour when alternatives only cost only four or five. This calculation of costs cuts both ways. If consumers refuse to pay utilities for excessively costly nuclear power, they certainly should refuse to pay cogenerators that much.

Fourth, incentives and penalties should flow through the rate of return. There should be sharing of penalties and incentives, with the extremes of bankruptcy and large windfalls avoided.

Fifth, least cost planning must be the framework for future supply decisions and all source bidding should be implemented where possible. These approaches are fundamental to the provision of power at the lowest possible cost to consumers. However, there are crucial difficulties with introducing competition and all source bidding on a broad scale in the industry. Identifying these global problems points the direction for recommending how PURPA implementation should be modified.

Sixth, open access to transmission is a requisite for competitive supply. Any simplistic notion of deregulation must be rejected, because it does not fit the underlying economics of the industry. Because the transmission of electricity across distances greater than a few hundred miles is economically unattractive, many regional markets -- perhaps a third of the nation or more -- would be highly concentrated.

One cannot deregulate with the bottleneck still under the control of the monopolist and expect much good to come of it for the consumer. It should be stressed that open access means that rates for access cannot be set in a manner that confers the benefits of market power on the transporting utility. One cannot allow the the bottleneck facility to be used to extract monopoly profits or economic rents.

Seventh, equal access to generation facilities will not do much good if local distribution companies do not aggressively pursue least cost sources of supply. This means not only that they will have to shop around among neighboring generation companies, but that they will also have to hold out the serious option of providing their own supplies -- either through conservation or generation. In order to ensure aggressive local distribution companies, it will be necessary for some form of divestiture to take place. Deregulated generation companies will have to be completely separate so that distribution companies have an incentive to shop around and state public utility commissions will be able to exercise influence over local distribution company behavior and costs.

Eigth, anticompetitive behaviors of all forms will be illegal and should be resisted in a deregulated market. Thus, efforts to create barriers to entry by any supplier, domestic or foreign are unacceptable. One cannot say that we want a free market in generation, except we don't want this or that group of supplier to be allowed to enter the market because their costs are lower than ours.

Ninth, just as we are concerned about the exercise of monopoly power, consideration must also be given to the extent to which end users will be allowed to exercise their monopsony power. Monopsony power occurs when an entity has the ability to threaten to withhold its demand, thereby imposing severe economic damage on the supplier. In exchange for not withholding demand, the supplier offers concessions. Monopsony power goes under the name of the bypass problem. Local distribution companies can be placed under immense pressure by their largest suppliers, who threaten to get off the system by either leaving town or building their own facilities to get around the distribution company.

In a deregulated generation market the incentive and ability to bypass may be larger, although virtually none has taken place in telecommunications where it is relatively easy. Local distribution companies and regulators will have to make it clear that captives of the system will not tolerate free riders. They will not bear the costs of redundant facilities -- by maintaining capacity and facilities which were once dedicated to these large users -- for long. Companies who get off the system will find that they may not be able to get back on or that the cost of being a prodigal son who tries to return will be very high.

PURPA REFORM

The current efforts to reform the implementation of PURPA provide an opportunity for exploring the potential for increased competition in the electric utility industry, if handled carefully and in an incremental fashion.

A bidding system can protect residential consumers from the extraction of excessive rents by suppliers. At the same time, economically efficient third party providers will still be able to compete, if the bidding system is implemented in a fair manner.

Improvements in the implementation of PURPA do not require modifications in other institutional and organizational structures within the industry. State public service commissions have been setting PURPA policy and they can implement the modifications. If the industry or the FERC believes that broader changes in transmission or organizational policy are necessary, they should undertake separate policy proceedings -- either administratively or legislatively.

The public service commission must be the central authority in the bidding process. When one examines the concerns expressed by utilities or third parties about how the bidding process might be biased against them, it becomes clear that the key element is the monopoly over distribution that the utility has and the commission regulates.

When utilities argue that third parties will use their guaranteed sales contracts to obtain low cost, high debt financing -- thereby gaining an unfair advantage -- one should ask why typical commercial contracts do not convey such power? The answer is that they are not backed by the extraordinary power of the franchise monopoly to ensure they will be honored. Similarly, third party complaints that allowing the utility to bid under rate base/rate of return regulation will induce them to make low-ball bids followed by large cost overruns rests on the belief that public service commissions will allow the pass through of cost overruns, which are only possible because of the monopoly. Thus, there is no doubt that the central organizational fact of the industry is the continuing monopoly at the distribution level and the ability of that monopoly to generate economic rents.

Bidding systems that will protect the public interest and provide a level playing field are well within the power of public service commissions. Each public service commission should be allowed to tailor the bidding approach to its specific needs, but there are some general principles we think all should incorporate.

First, bidding must be part of a least cost planning process. It has taken a decade or more to begin the movement toward vigorous and comprehensive least cost planning. This is a positive development that must be preserved because least cost planning is the only way that demand-side measures can enter into the production process. There is no external constituency that can effectively "bid" conservation. This is the utility's job under the scrutiny of the public service commission.

Second, the public service commission should set planning specifications. It should take a position on the nature of risk to which ratepayers will be exposed. This includes both reliability and the cost of power. Taking clear positions on these risk issues can solve problems of protecting the public interest and leveling the playing field in a number of areas including construction costs, fuel prices, finance, and system management.

Utility bids or target prices, when made under rate base treatment, must not be cost-plus contracts. The risk of construction cost overruns must fall on stockholders, as they will for the owners of third party power. As I have already noted, the regulatory compact is already moving strongly in that direction.

Risks of fuel price changes should be treated in an even-handed manner. The public service commission must establish a policy for fuel price escalation that applies to all bidders.

Financing differences should not be allowed to determine the outcome of the bidding process. Specification of debt/equity ratios is entirely appropriate, since excessively leveraged projects may be deemed too risky because of a lack of equity commitment. Utilities should be allowed to match third party debt/equity ratios and violation of specified ratios should be considered a violation of the contract and subject to commercial penalties.

Public service commissions should also set policy goals for reliability. In the transition to a more competitive system for obtaining needed generation, it is entirely reasonable for commissions to set limits on specific categories of power if they find that they are inherently less reliable -- either technically or organizationally. These guidelines should be the result of formal proceedings where evidence is heard and conscious policy decisions made and documented.

These are only a few areas where decisions must be made to effectively excute modifications in PURPA implementation in the public interest. There is no doubt that public service commissions will exercise great ingenuity in tailoring unique-state specific solutions to these and other problems. These are issues that should be dealt with even if no PURPA reform were necessary and even if none were being proposed. But because PURPA implementation has gone astray in some states, FERC should take the opportunity to move the industry incrementally in a procompetitive, proconsumer direction with public service commissions being encouraged to take a more vigorous role in implementing electric utility policy in their states.

CONCLUSION

Competition and deregulation are great in theory -- but they must not mean simply a switch from the regulation of monopoly power to the unregulated exercise of market power. If the consumer movement has become a bit more hard headed about deregulation, it reflects our experience in other industries.

We believe that regulation which gives competitive forces a freer hand and allows incentives to play a larger role can achieve the majority of efficiency gains in an industry which still possesses significant monopoly characteristics, without unnecessarily exposing consumers to the risks of deregulation. We appreciate the opportunity to testify on these important matters and look forward to working with the Committee and the Federal Energy Regulatory Commission in developing effective solutions to these problems.

The CHAIRMAN. Thank you very much, Dr. Cooper.

Dr. Cooper, you speak about you need a system that does away with excessive rents. Are you prepared to say that bidding would do that—a competitive system—and if not, how would you change that?

Dr. COOPER. We believe that a competitive bidding system will, in fact, squeeze the rents out of the process. Essentially if a utility under a least-cost plan puts out an increment of power for bid, then competitors in a genuine competitive process will come in with the best price. And there would be winners and losers. And that competitively determined price we believe is the avoided cost so that you would, in fact, squeeze those rents out of the process. Obviously, a fair rate of return would be available to bidders, and low bidders who come in below a certain price might, in fact, get some rents. But a large part of the rents would be squeezed out by bidding.

The CHAIRMAN. Now, the NOPR, as I understand it at this point, would require companies to use or would permit a PUC to require companies to use a competitive bidding system. Is that correct? Is the way you understand it?

Dr. COOPER. As I understand it, there is nothing mandatory in the process. We have obviously——

The CHAIRMAN. The PUC may mandate it.

Dr. COOPER. The PUC may mandate it, and we have obviously expressed our belief that PUCs should find ways of avoiding what has simply been a rent transfer from a utility to a third party.

The CHAIRMAN. Now, you secondly say that you ought to have a single policy on fuel escalation. Did you mean that you would envision that when they make these competitive bids that they have a fuel escalation policy in there, or do they take the risk of fuel escalation?

Dr. COOPER. Well, what I think you need is a consistent policy because you can easily conceive of a—the utility, which wants to bid a base load facility as a regulated entity, has a different set of rules. For instance, if they believe they will get cost-plus and be able to pass through any cost overruns, they will have an incentive to low-ball the initial bid and then come running back to the public service commission to achieve cost overruns.

The similar case will be true with fuel price escalation.

The CHAIRMAN. You envision a competitive thing where the fuel goes up and down?

Dr. COOPER. We now have in many States fuel price escalators. That essentially insulates——

The CHAIRMAN. Not on competitive bids.

Dr. COOPER. I think that will vary from place to place, and that is a matter of contract.

The important part of the bidding process is not to allow someone to impose, for instance, 100 percent pass-through and then impose a bidding requirement on someone else for less than 100 percent pass-through. A consistent policy is what is important so that if you have one supplier who is saying I assume that any changes in my fuel price will be passed through to the rate payer, and the public service commission accepts that in the bid, he cannot take a second bid and say you are only allowed a 75 percent pass-through. The bidding rules have to be the same. And I think the state policy should be clear about the amount of insulation from marketplace risk and fuel prices that every bidder is going to be allowed to assume in the process of bidding his project.

The CHAIRMAN. Yes, Mr. Borré?

Mr. BORRÉ. Briefly on that point, if I understand my panel colleague correctly—and perhaps I don't—I assume we are not talking about a state PUC doing the impossible, namely setting out a trajectory of future fuel prices which act as a ceiling or an umbrella for a project. Now, in this matter of future price risk and pass-through, the reality is that in some of the larger projects that are bid, the developer, whether QF or IPP, will make a very effort to define an escalator for his fuel over the 15-20 year life of his fuel contract, coal, gas, what have you and to put as much of that escalation risk by contract onto the fuel supplier in that deal.

The CHAIRMAN. Yes. To me it seemed that the risk of fuel escalation should be on the bidder. I mean, if you are insulated from any risk of fuel escalation, the company could do that. The utility could do that. It seems to me that's the whole purpose of bid, which brings me to the next question which we really haven't zeroed in on very much.

And that is, what does the PUC require and what does the utility decide in terms of the specifications of the bid because it seems to me that a utility which was unfriendly to this whole process could define its bid in such a way as to exclude anybody other than the utility? They could put conditions on for the kind of fuel, for the debt equity ratios, for reliability, and for other things that would make it impossible for what otherwise would be IPPs. Isn't that so? And if not, who decides what the specifications of the bid are? Who should decide that?

Dr. COOPER. I firmly believe that the public service commission should play an active role exactly for that reason. The public service commission in virtually every state is charged with protecting the public interest. And if it sees an effort to set specifications, then in essence shut down the bidding process, that is not in the public interest.

The CHAIRMAN. Should the utility be prevented from designing its requirement in such a way as to—you know, peaking, availability, the place on the line it comes in, maintenance, all of those things. Should they be permitted to do that or prohibited?

Mr. ANDERSON. May I comment?

Mr. Chairman, first I think we need to draw a distinction between a utility and a utility affiliate. Many times I think that we tend to blur them together. I would draw a very bright line between the two, and I would say that a very difficult question is when is a utility affiliate the instrument of the utility and when is the utility affiliate operating as an independent entity a key one. If you can draw that kind of a line, then I would say the utility doesn't participate in the bidding process and the utility specifies what are the conditions overseen by the PUC.

The CHAIRMAN. Well, I think FERC said—if I may interrupt—yesterday that the utility would be required to state what their price was going in.

Mr. ANDERSON. We believe strongly that they should.

The CHAIRMAN. And then, in effect, everybody else would have to bid against that.

Mr. ANDERSON. We believe very strongly the utility should set its price and that that price should be the ceiling for any bids that would be accepted, as well as being a ceiling for the cost that would be recovered from customers if the utility were the one to build. I mean, if the utility rejected then all bids and built itself, then that ceiling price also would be a ceiling price for cost recovery from customers.

You could still, though, have a utility affiliate as a participant in the bidding process as long as that utility affiliate were independent. And this is a very difficult question, and this is the kind of protections—we need to see what FERC is going to put into its NOPR and come out and the PUCs are going to have to look very carefully at. We are very concerned about self-dealing which is what I heard you allude to.

The CHAIRMAN. Well, maybe I'm worried about something that is not a problem. But what should the final rule state with respect to the ability of a utility to design its own requirements for power?

Mr. ANDERSON. Well, I'm still not convinced that there has to be one bidding process for all 50 States. And I would hope that FERC isn't going to do that. So, I'm not at all trying to evade the question, but I'm saying that we could have in different States different processes.

The concept that we are intrigued with is to introduce more competition into power procurement. And what we would say as a minimum is that if it is the utility that is specifying the terms and conditions that would be associated with the bidding, then the utility can't participate in that bid. The utility is the provider of last resort, the backstop on this kind of an idea. If the utility wants to participate in the bidding process itself as an actual participant in the process, then the utility is going to have to give up the right to be able to specify the conditions that bidders are going to bid on and is going to have to give up the ability to judge those bids. I don't see how——

The CHAIRMAN. They would be prevented, if they are going to go through an affiliate, from defining where that would come on line, what the terms of reliability are, what the debt equity ratios were, what the maintenance schedule is, all of these things. They would lose completed control are you saying?

Mr. ANDERSON. No. I'm saying that if the utility defines all of those things, then the utility cannot participate in the bid. Now, if that utility has an affiliate that we are assured is an independent entity, that affiliate may be able to participate in the bid. We are rather skeptical whether that could be assured within the utility service territory for sure. But perhaps it could be.

I think the critical element there is what kind of access is available for the losers. We get hung up too much on the idea of self-dealing or the control that the utility has. Maybe we could back off on that and back off substantially if the losers of the bid have options. The problem that we face now is if the utility does in one way or another control the bidding and the utility rigs it in a way that they're the winners, then the losers don't have any options at all.

The CHAIRMAN. Well, let me give you the situation I'm concerned about. The utility needs 100 megawatts of power and you can build a gas turbine with this new technology quickly, cheaply, and you can amortize it out they tell me fairly quickly. The unknown factor is what is the price of gas. Now, you could have an IPP that would come in and put all the numbers up and say we figure if we can hold the price of gas below $2 for five years, we can amortize this thing out. That's a good business risk. But the utility needs at least, let's say, 10 years of power. But the IPP is willing to take the risk because if it holds for five years, they have all their costs back and everything from there on is gravy.

Suppose the utility says we've got to be sure about 10 years of power. And either this IPP has to have a firm contract for 10 years of gas, or they have to have some kind of financial bond or some kind of assurance that they'll be able to pay for the gas because otherwise they would go for 5 years, get their cost back. If the price goes too high, they'll say too bad and shut her down.

Now, should the utility be able to define like you can't use gas or you have to have the economic ability to pay for the gas if it escalates? Shouldn't they be able to define that?

Mr. ANDERSON. I think the utilities certainly should address those things, and I think they ought to address them in a public forum. And the commission, before the bidding even takes place, should bless or should make suggestions to the process and to the criteria that are going to be used. And it could be that gas is a very, very important criteria in some areas of the country and it could be that it is not others areas.

The CHAIRMAN. You understand I want to encourage the use of gas.

Mr. ANDERSON. I'm sure of that, Mr. Chairman. [Laughter.]

I'm just saying that in other areas of the country, they might have a different set of——

The CHAIRMAN. I'm distressed with this warm weather, by the way. [Laughter.]

Mr. Hobart?

Mr. HOBART. We have supported, incidentally, the appeal of the prohibition on use by utilities of natural gas in the Field Use Act, and we were glad to help you pass that last year.

But I think the question you raise is a good question, and it almost comes down to whether the discussion is being driven by process on one side or responsibility on the other. I think it is very difficult to conclude that you want to create a situation which is so fraught with intricacies and procedure that it does not allow a utility, which has the ultimate responsibility to supply electricity in an adequate amount and in reliable conditions and under reasonable price, with making the decisions that it believes are essential to do this particular job.

The CHAIRMAN. You're saying utilities should retain those powers.

Mr. HOBART. Correct.

On the other hand, it is also clear that in order to apply to the situation the kind of competition that might aid consumers that you have to do some things that utilities may not want to have happen or that they have to live with certain strictures that they might regard as onerous. For instance, John speaks about self-dealing. I think that is a problem. Self-dealing is a problem. Reciprocal dealing is a problem. Cost allocation between entities, a subsidiary and the parent, is a problem. So-called daisy chaining is a problem where you string together a bunch of——

The Chairman. Certainly all of those things are a problem, and we don't know what the NOPR will say, but obviously it would be required to deal with that.

Let me ask a fundamental question. It seems to me that what we would be doing is fundamentally changing the risk. Right now there is a great risk of utilities if they build a big plant, and the cost goes up or the need turns out not to be there or otherwise. New Hampshire Utility can tell you about that.

But what this bidding thing would do would be to put a different kind of risk—that is, the risk of not having reliable power and not having enough power or otherwise the thing going kaput—but minimizing the—or really eliminating the cost risk. Is that correct and is that a prudent thing for the country to do to now put the risk—the risk now on consumers is not that you're going to have to pay more than you should, but that you're not going to have the power if it's there. Is that a fair characterization?

Mr. Duggan. I think, Senator, that in the 7 years that PURPA has been around and us developers have been around, there have been thousands of megawatts of power developed under the exact kind of circumstances that we're describing today. And I don't know that the consumers have been put at undue risk despite what we heard. The power is reliable and the power is supplied on a consistent, reliable, economic basis. And I think it will be in the future.

The Chairman. Well, we don't have any put out by IPPs today.

Mr. Duggan. The difference between what we have today and an IPP is a matter of definition and size. You've got 400 and 500 megawatt cogeneration projects that are supplying steam. So, they meet the cogeneration definition. You take the steam away and its an IPP. It's a question of definition, sir.

The Chairman. Well, that's right. But you can say that the cogenerators——

Mr. Duggan. Yes, sir.

The Chairman [continuing]. In most cases are maybe even more reliable that IPPs would be because you've got IPP International Paper out there with a $2 billion plant that has got to make wood. And it just happens that the electricity is a byproduct. Well, they can't shut down the electricity because they've got too much investment in the plant. So, in that respect cogenerators may be more reliable than, say, a gas turbine whose price of gas has quadrupled.

Mr. Duggan. You take the IPP. And everybody is concerned about the so-called reliability factor. And the discussion this morning seemed to center on the fact that the IPP owner-operator might endure some economic distress and therefore have to walk away. That can happen to anybody. It can happen to anybody who can make a mistake.

What we have proposed in cogeneration projects, which I submit are identically the same except for that steam user, is that the utility can cover that risk by, one, putting in a put.

The CHAIRMAN. By what?

Mr. DUGGAN. Putting in a put, to say, guys, anybody can have a problem. And if you can't do it, I want to step in because I need that capacity. And here's the way I'll step in. You guys got a chance to make some money. So, you're going to lose your equity, and I'll buy that plant for the debt. Now, that is going to keep the debt holders——

The CHAIRMAN. Do you have that designed into the contract?

Mr. DUGGAN. We have offered that to utilities, sir, and they have turned it down sometimes because some guys are trying to stop the development. But we have offered that, and that protects the debt holders who are really the people at risk.

The CHAIRMAN. Well, what you are saying is that the utility, therefore, should be able to design the conditions.

Mr. DUGGAN. Yes, sir.

The CHAIRMAN. You just create a particular condition there.

Mr. DUGGAN. I think in the negotiation process you can design conditions that are suitable to both parties to make sure that the independent power producer, the cogenerator or the small qualified power producer can have an acceptable contract and make that thing go forward on a very reliable and economic basis.

The CHAIRMAN. And the utility and IPP you say should be able to do that?

Mr. DUGGAN. Yes, sir. The PUC really has no responsibility.

The CHAIRMAN. Should the PUC be able to veto such a condition?

Mr. DUGGAN. They should be able to veto as long as they accept the responsibility for their actions. But we have seen in many jurisdictions that the PUCs take actions and don't take responsibility for those actions. So, they have to live with what they do I think, sir.

They're not involved in the negotiation process. What has hurt us is that you sit down across the table and negotiate a contract, and it probably is a bad contract, but both parties walk away dissatisfied. You take it to the public service commission, and they have not participated, so they do not know what was given and what was taken. And they say, well, we don't like this, and we don't like that. You got to change these things. They're not involved in the process. I'm not sure how much latitude they should have except to say you negotiate it. Mr. Utility, you live with it.

Dr. COOPER. There are two points I would make. The example you gave inverted the order; that is, the decision to have it as a 10 year contract would be on the table first. And so, your gas cogenerator would have known that. He would not have designed his price for 5 years when he was told that it was 10 years. So, he might look at that and say I can only hold my price for 5 years I believe. And, therefore, in order to insulate myself from the second 5 years of risk, he might amortize his plant more rapidly. He might insist on a higher rate of return so he gets a more rapid net present value out of it. The key thing is to have the rules on the table first.

Second of all, utilities like to say they are responsible for the reliability, et cetera, in this system. But in point of fact, if you look at the process today, public service commissions have a great deal of influence over those choices because they control the economic purse strings so that if a utility—utilities have spent a great deal of time recently arguing that they need much larger reserve margins. It just so happens that they happen to have much larger reserve margins. So, they have after the fact tried to make the case that they need them and, therefore, tried to justify the configuration of their systems ex post.

In point of fact, many commissions have said, no, you knew ex ante that this was our historical reserve margin. And they have not accepted the utility's definition of what it needed for reliability. So, in point of fact, the process today is very much mixed.

What we would like to see is to get that process up front. And I think both the utilities and third parties would like to see that as well. So, you don't get the retroactive redefinition of what the terms were. If it's a 10 year term and the utility says I want a 20 year term, the public service commission might say 20 years is ridiculous to try and impose either on rate payers or third parties. We want a 10 year term. Then your gas cogenerator designs his bid to meet his economic needs.

The CHAIRMAN. So, you are saying that the PUC should have the last word on what the design of the bid is. Mr. Duggan is saying that only the utility can do that.

Now, let me ask you another question. Well, let me work on that question and turn it over to Senator McClure. I had a really good one. [Laughter.]

Senator McCLURE. I have kind of a general question because Chairman Hesse indicated in her testimony that FERC would not consider wheeling or transmission access as a part of the three notices of proposed rulemaking. And if that is the case and if the final rules that are issued as a result of these proposals does not include access to transmission, then do you support or oppose the FERC proposals?

Mr. BORRÉ. I might speak to that point briefly. It is in our prepared statement.

It is an issue that I think you have seen over the past 2 days generates heat as well as light.

Senator McCLURE. But we don't have any way of getting that on the line.

Mr. BORRÉ. That's a fair point.

We, from our standpoint as project developers in selected parts of the country, New England and another one of our members is doing an IPP in Nevada—we very forthrightly duck this issue as something that needs to be taken on in the first phase, namely in the context of these three NOPRs that I have not read and that have to be reviewed for the fine print.

As a judgment, I'm not up here to defend this as a computer-driven analytical statement. There are regions of the country with power pool arrangements and economy exchanges under way today where a third party project development in today's environment. And we're drawing this from the experience of only one or two. In those parts of the country projects are progressing.

And, Mr. Chairman, Senator McClure, while you were out, I would make for the record the point that some of these IPP projects are not tea kettles. One is a 250 megawatt gas-fired combined cycle unit in Rhode Island. The other—and Senator Ford is not here today—is the first unit, 250 megawatts in Nevada, coal-fired.

Now, recognizing the complexity and the technical difficulties, can you analogize gas transmission access, electricity transmission access? We think there is sufficient reason to implement the FERC proposals as we dimly understand them so far. Fixing avoided costs to make them more market responsive, putting in place permissive, not mandatory, guidelines for those states who choose to implement the bidding mechanism as one, but not the only one, of several procurement mechanisms. And finally, giving better regulatory standing to these creatures out there in "no man's land 'between PURPA and the Federal Power Act, namely the so-called IPPs.

If I may slide back to the point that——

Senator McClure. Well, let me, if I can, before we get off that point. If I understand you correctly—and I hope that I distilled out of your answer—if the final rules issued contain the features which you have just outlined, you would favor final rules even in the absence of mandatory transmission policy.

Mr. Borré. Yes, sir.

Mr. Anderson. I explicitly said in the statement that we strongly encourage FERC to consider transmission and think that it should be done simultaneously, not at a later phase. We did, however, state that we thought that it might be possible to create a fair and nondiscriminatory bidding process limited to QFs, strictly limited to QFs.

Senator McClure. But not IPPs.

Mr. Anderson. Not IPPs if it did not include any transmission access. And we have submitted as an attachment to our testimony a legal memorandum to this effect.

Senator McClure. Mr. Duggan?

Mr. Duggan. The Coalition supports the position that we think that the process should involve limited and voluntary access to the transmission system. It doesn't necessarily have to be mandatory, sir.

Senator McClure. Mr. Hobart?

Mr. Hobart. I think our view of the current proposals, as we understand them, is that there is less here than meets the eye. The proposals that relate to PURPA and to IPPs deal with something that is already possible to solve with existing law and with existing policies. And the only new element that does need to be wrestled with is transmission.

Senator McClure. Dr. Cooper?

Dr. Cooper. Our position is that if you proceed without the transmission undertaking, examining that issue, you are constrained by existing policies, certainly the Holding Company Act. In many other respects, you may be bound by the Federal Power Act to impose regulation. I mean, the finding of an absence of market power is going to be a legal question about how much regulation you have to have in those cases. So, you will be constrained by your existing institutional structure.

But clearly, PURPA can be reformed. The question will be essentially—and I agree with it—simply eliminating an artificial size limitation. And there will be significant legal challenges over the authority to do that as a single piece of policy.

Senator McClure. I might just note for the record that Senator Ford is not here for the same reason that Senator Johnston and I were absent for a moment. He is presiding in the Rules Committee where he is chairman over the hearings on committee budgets. He expressed his interest in these hearings, and the necessary conflict was noted. I think it should be noted here as well. It's certainly no lack of interest on his part.

The Chairman. Well, I'll ask that question I forgot a moment ago.

With the use of IPP in the bidding process, as I understand it, FERC envisions that the cost will be just passed through without any profit margin added. And if that is so, why would a utility wish to go to bidding and IPPs when they could build it themselves and get their own profit margin, particularly with gas where the risk is relatively small? And if that is so, if they wouldn't want to do it, couldn't they frustrate any PUC's requirement by putting on a whole bunch of requirements that would frustrate the ability of anyone to bid?

Dr. Cooper. Again, we would vigorously oppose efforts by utilities to shut down the process through the so-called non-price factors. I mean, the public service commission that adopts a competitive bidding approach ought to be very carefully concerned about what is the intent to frustrate that process. And they have the power of the purse strings. Don't mistake. The utilities come in complaining about what PUCs do to them. If they establish a set of conditions and the utility does not have the lowest cost bid under those conditions, the utility is not going to bid. And I don't think a PUC worth its salt would allow the utility to frustrate that public interest aspect of the bidding process.

Now, that doesn't, again, guarantee you what it is going to look like. But clearly there are vigorous public service commissions out there that have pursued bidding processes, and others should be encouraged to do so.

The Chairman. By the way, are you concerned about the PUCs? You heard Mr. Peevey and I think it was Mr. Disbrow talk about PUCs that have just loaded it on these utilities in order to promote their favorite kind of technology. Were you worried about that at the time or now?

Dr. Cooper. Loaded—I heard a lot of——

The Chairman. In the case of Southern California Edison, it required the purchase of $300 million a year of additional power that they didn't need, that was overpriced, and in the case of I think it was Northeast, a billion dollars worth.

Dr. Cooper. We clearly want a least-cost planning process which takes conservation into account and puts out only needed power for bid, and awards that needed power to the lowest cost bidder. So, that complaint we are sympathetic with.

The retroactive prudency complaint I heard an awful lot of we are not sympathetic to because most of it wasn't retroactive. But we'll leave that for a different day.

The Chairman. Mr. Borré?

Mr. BORRÉ. Mr. Chairman, briefly on the point. I think lurking in the background, the effect of this package of FERC initiatives is going to be practically to put considerable more weight, responsibility and burden on State level regulation. Now, I would add that is not necessarily bad. But one can speculate that is the direction in which things will go.

If I heard the testimony and colloquy correctly yesterday, including three prominent State regulators, they are not looking for an automatic FERC-set formula which they just pass through administratively. As I hear it, they want some reaffirmation of some of their legal authority to sponsor and permit within their jurisdictions State bidding and some reform on avoided cost determination so they can get out of the problems mentioned in California, Texas and some other jurisdictions.

Now, you have been probing at this question I think. How much flexibility underneath there at that level of contact between the state PUC and the utility itself? Now, it is very easy here at the outset to say, wow, it should be flexible. I think the reality of the matter is that if the FERC approach is a permissive one—here are the guidelines. Those who want to follow do it—you are likely—and this is judgment on my part—to get those jurisdictions that feel the need to get more competition to get those PUCs involved.

Now, as to how tightly they wrap themselves around the utilities, not speaking for them but with some look and experience over the last year, you had Bob Keegan from Massachusetts. Massachusetts' State PUC is allowing, pushing forward bidding. I think one could characterize that bidding system, State to utility, as a pretty flexible one. Boston Edison lays out its specifications. They are noticed. They are discussed. They are reviewed by the PUC to be sure that there are no nasty little tilts or twists.

The other model is Connecticut where some people suggest that Connecticut State public regulation is taking a more hands-on. Here are the ways in which you folks are going to structure this.

I think we are going into a period of experimentation voluntarily at State levels where the State PUCs are going to have to sort this one out. But I think they are going to have to take a stronger role. That is the quid pro quo of these proposals as yet unread.

The CHAIRMAN. Thank you.

Senator MCCLURE. That leads right into a question that I wanted to ask all of you and that is the question of Federal preemption of state authority.

Mr. DUGGAN. Being a farm boy from upper State New York, I think the more that the Federal Government preempts the State and the local governments, the more problem we have, sir.

Senator MCCLURE. Mr. Borré?

Mr. BORRÉ. I am not a lawyer. I am a DOE alumnus. I will pass on that one. [Laughter.]

Senator MCCLURE. Mr. Anderson?

Mr. ANDERSON. We believe very strongly in the States being able to do a good job and regulate rates, and we certainly don't want that authority to be preempted. But I guess I should say that I haven't heard anything that I'm talking about coming out of FERC that would preempt the states.

Senator McClure. I noticed Dr. Cooper in his testimony used the word that FERC should—that the State regulatory commissions should be encouraged by FERC. I'm not sure what that term means.

Dr. Cooper. As I understand it, there is ambiguity in the question of what the States could do. There is the question about whether a competitive process meets the dicta of PURPA. I would like to see FERC get strongly on the side of that competition, passing it on to the States.

I am a party to a Supreme Court case active today having to do with the Middle South System. I was an expert witness in that case, and I'm not a fan of FERC preemption of State authorities in that case and in many other cases.

But clearly, they need some clarification so that they feel that they can go forward with these competitive bidding processes, and they may need some direction in terms of keeping the playing field level.

Senator McClure. They who? The States?

Dr. Cooper. The States. I would like to see the States—the States are setting electric utility policy, and they need to get more actively involved. And this is an opportunity I think to do so.

Senator McClure. If all we're doing is enhancing the capacity of the states to run their own show, why is FERC involved in that? Why isn't that a matter of legislation?

Dr. Cooper. Well, FERC has authority under PURPA, as I understand it, and FERC has also proposed something about IPPs. FERC also started the process with a much grander scheme so that in one sense FERC had issues on the table. In another sense they put a lot more issues on the table. And they, if you will, have dragged us into a debate over what the Feds should be doing.

Senator McClure. They, indeed, can drag us into it. The question is whether they have the legal authority to mandate it and whether or not they should have the legal authority or whether or not that should reside here in the legislative body.

Dr. Cooper. If they do it wrong, we'll certainly drag them into court to test their legal authority. [Laughter.]

Senator McClure. I like your subjective evaluation of what is good or bad Federal regulation.

Mr. Hobart?

Mr. Hobart. Senator, there is another question involved and that is whether some kind of regulation is altered and falls between cracks between the Federal Government and the States. And that is a question of the wholesale regulation of IPPs. The Commission has suggested we can relax that kind of regulation. But the materials that they have published thus far don't indicate how consumers who buy at wholesale are going to be adequately protected if the FERC abandons part of the field and nobody else picks it up.

Senator McClure. I'll not pursue that subject anymore. But it is one that troubles me because there are times I haven't liked State regulatory activity. The tendency on the part of many of us is to reach in and try to do something about it. And that certainly in my view is not our responsibility absent an overriding national concern with something that states can't do. It's not a question of subjecting their activities to my idea of whether they are wise or foolish.

It's a question of whether or not there's an overriding need for a different scheme of regulation than we now have.

Mr. Hobart, let me ask one question about transmission policy. We have a very discrete problem that is a problem that is two-ended out in the Northwest, as you know, the intertie access policy. Intertie access now is regulated almost exclusively by BPA. There are a great many people who don't like that. They would like to have more free access to that Federal line to California—those Federal lines to California. Is that something that we ought to be looking at in terms of regulation of BPA?

Mr. HOBART. Well, use of the Federal transmission system is clearly an important question as it relates to movement of power within that reason. And BPA, because of its dominance in transmission in the northwest, is the major player. The controversy you identify relates, in part, to California's interest in getting power moved out of the Northwest or through the Northwest perhaps from Canada.

Senator MCCLURE. But that's the other end.

Mr. HOBART. That's right.

Senator MCCLURE. I mentioned it was two-ended.

Mr. HOBART. That's correct.

My understanding talking with BPA officials recently is that an effort is being made now to see if there can be an explicit accommodation to recognize the interests of California and the Northwest and non-Federal entities within the Northwest that want opportunity to use the BPA facilities in a more effective way.

Senator MCCLURE. You are not ready to express an opinion as to how that should come out.

Mr. HOBART. Having members on both sides? No.

Senator MCCLURE. The other end of that is the Canadian access to Federal facilities for the purpose of transmitting energy produced outside this country to entities inside this country that consume it.

Mr. HOBART. Well, the problem seems to differ from one end of the country to the other. A lot of public power systems and private companies in the northeast are benefiting significantly from the importation of Canadian electricity, primarily hydropower from Hydro Quebec.

In the northwest the problem has been until at least recently that BPA and some other utilities in the Northwest had excess capacity. They wanted to sell it in markets outside the region, and British Columbia was a competitor for those markets. So, the result of that was the intertie access policy which places British Columbia at the second priority level for use of the intertie.

What happens with respect to the implementation of the treaty between the United States and Canada and what happens with the specific negotiations that are going on now in the Northwest will probably be determinative of how that issue ultimately plays.

Senator MCCLURE. Well, obviously, there are a great many winners and losers in any kind of situation like that, and I can appreciate your need for some caution when you do have members on both sides of those issues.

Mr. HOBART. Thank you.

Senator McClure. I want to inject into the discussion at least this much for at least people's thinking, if not for their comments, and that is the difference between long-term benefit and short-term benefit. I am not at all certain that they are always the same. Sometimes short-term benefit can, indeed, be long-term detriment. You can do something that looks very good in the short term, but conditions change and suddenly the long-term bites you.

Mr. Hobart. I think that is very true, Senator. And I think it emphasizes a point that was made by Mike Peevey on the first panel, and that is a part of this whole debate and discussion that really has not been focused on perhaps enough is the necessity to plan how we proceed in trying to enhance our electric system in the United States. Mike Peevey mentioned the fact that the old Federal Power Commission carried through on the national power survey in 1970 and another one a few years prior to that. And one of the reasons for doing that was to try and mobilize a cadre of electric utilities and people responsible for our electric supply to think about how we developed our electric utility system.

I know you in the State of Idaho have a proposal from Mr. Simplot to build a transmission line costing $1 billion and capable of moving 2800 megawatts of electricity from the northwest down into the southwest. Well, it's a question. Is that an economic idea? Is that an electrically satisfying thing? Is it aesthetically acceptable even? Somebody has got to do some planning and think about how we link together our transmission system to make it work right and give us the best deal for consumers.

Mr. Anderson. Senator?

Senator McClure. Mr. Anderson?

Mr. Anderson. I couldn't help but think when you asked that kind of a question though, it's a two-sided one. One, when I talked to sophomores at great length, I used to always tell them in the long run we're all dead, so we have to be very careful about the long term.

But I think it highlights the point that the construction lead time of powerplants is something that we keep losing sight of, and it has to be related in this particular instance. I would state categorically that if it takes 15 years to build a powerplant, that it is uneconomic. I would state the same thing for a 10 year plant, and I would almost state that anything over 5 years becomes an uneconomic thing from a consumer standpoint.

And if we then jump and said that any powerplant that was going to built would be built in a 5 year period, then the planning horizon that Larry and Mike have been talking about has been shortened rather considerably and at the same time the long-term versus short-term benefits start collapsing some. And I think we need to look at that.

Senator McClure. Well, there are some other variables in that too. And I'm not sure I would agree with your flat statement. Certainly you can reduce risk by shortening the time frame. You can increase predictability, but you may also run into a problem where capital intensive forums are ruled out in favor of fuel intensive forums. And that would not necessarily be good with respect to the long-term——

Mr. Anderson. I understand that well.

Senator McClure [continuing]. To the consumer.

Mr. Anderson. And I have seen no evidence to say that we couldn't build a nuclear power station with the technology that we have today in a 5 to 6 year period.

Senator McClure. Well, I would agree with you. But, boy, that's a radical departure from current practice.

Mr. Anderson. Yes, and we have debated on that issue at other times.

Mr. Duggan. On a more basic premise I think what concerns me as the developers that we are seeing in this country today a tremendous reliance on a short term on a reduced fuel cost, especially on imported oil. We forgot what happened a few years ago. And by relying excessively on imported oil and imports from Canada for hydropower and other things, we are minimizing the opportunities for developers to build and increase our dependence on national electrically generated fuel projects. And I think that is hurting us in the long run because we are very short-term in our focus, especially at the State level.

Senator McClure. Well, I'm a little bit concerned about the Northeast and the access to Canadian Hydro because of some of those swings in the past. Unless you have it embedded in treaty, there is nothing to prevent governments on the other side of the border to alter the pricing of energy according to world markets. And you may enter into a contract that looks good today, and two years from now have governmental policy change the economic relationships in such a way that the consumers haven't been helped a lot except they felt good for a while.

Mr. Duggan. I think New York State right today has a much greater dependence on imported oil than it did before the crisis, and that's wrong.

Dr. Cooper. At least with respect to Canadian free trade, let me say something in benefit of free trade. If we can't believe that a broad-sweeping treaty followed up by contracts negotiated across the longest undefended border in the world are good for anything, then we ought to question every notion of free trade that we have available.

Senator McClure. Dr. Cooper, I don't want to debate the free trade issue this morning. I'm just noting in the absence of treaty, price arrangements can be changed by governments. And that is something we learned once before. I hope we haven't forgotten that. If you forget it, you may live through it again. There are ways to protect ourselves against that, obviously. But that's the lesson that history should give us is that there is risk that needs to be addressed, and we ought to take steps to protect ourselves.

Mr. Borré. If memory serves, the last comprehensive approach to energy came in 1977–1978 in the sense of putting frameworks in place rather than peeling off obstacles. I still have a tremendous sense of the irony that after that package, including PURPA, was debated, a very tough, long process, literally as the ink was still wet a not so funny thing was happening in Iran which continues to this day. And the whole basis of that very tough effort, the National Energy Act and those packages, was a computer-driven notion of then $15 oil. But we may have ended up there today adjusting for inflation. But it was a roller coaster.

Now, almost 10 years have passed since PURPA. I have not gone back to the record, but I remember some of the discussions being in the fringes of the process. I would venture to say that no one in 1977, 1978, 1979 anticipated the developments of PURPA, both the good and the bad. And I would argue very briefly that the good considerably outweigh the bad. But the point is that that which at the time seemed like a good idea, a bid on the margins, to take care of efficiency has grown into one of the major avenues for adding power capacity.

Now, sir, your question as to short term versus long term. The FERC in looking at PURPA I think has a string on this tangle of power generation policy. One can view it narrowly. I think there is a consensus that PURPA fixes are needed. Without redebating the point, I think there is a very defensible case that more broadly the way in which business is done upstream in bringing on capital intensive power generation capacity—that needs to be relooked.

Senator McClure. Thank you very much.

Senator Melcher.

Senator Melcher. Mr. Borré, I would like to better understand your advocacy that independent power producers be the unregulated affiliates of the utilities where they're operating inside or outside of the utility's franchise service territory.

I judge that the two companies that you spoke of, one in Rhode Island and one in Nevada, 500 megawatt capacity in the case of the former and 2,000 megawatt in the case of the latter, that one is in a territory where they are going to sell the power—a franchise territory—and one is outside. Is that correct?

Mr. Borré. Not quite.

Senator Melcher. Is the 2,000 megawatts supposed to be sold in Nevada or California?

Mr. Borré. Some in Nevada and some to be exported. In the case of——

Senator Melcher. How much? Is it mostly in-State or out of State?

Mr. Borré. This is a member of the group. It's not my project. I believe most of the first unit, 250 megawatts coal-fired, would remain within the State of Nevada.

Senator Melcher. And then gradually almost all of the rest of the 2000 megawatts are going to be outside the State?

Mr. Borré. Now we are looking to the mid to late 1990's, and the commitment of those additional units—we'll have to track the market, sir.

Senator Melcher. Well, that doesn't answer the question. And I'm going to cease to ask it because it isn't all that pertinent.

But what I'm getting at, I don't quite understand how you have a utility that is regulated and takes on an affiliate, and then you say it should be unregulated—the affiliate.

Mr. Borré. It's a gray area. It's a compromise, split-the-difference solution. If you want to be completely sure no utility is going to be dealing with itself or have even a potential conflict of interest without throwing rocks at them, then you would take what I believe to be is the FERC approach which is that utility will not do an IPP project not only within its franchise service territory, but within its so-called zone of economic influence.

Senator MELCHER. And you disagree with that.

Mr. BORRÉ. Correct, sir.

Senator MELCHER. You disagree with it.

Mr. BORRÉ. That is correct.

Senator MELCHER. All right. And you think that is FERC's current policy?

Mr. BORRÉ. Based on a draft paper that I saw some months ago. I have not seen the current NOPR. I do not know today's approach.

Senator MELCHER. What you're hoping for is that they have a more enlightened approach in your view.

Mr. BORRÉ. Yes, sir.

Senator MELCHER. And that is somewhere in between there.

Mr. BORRÉ. Yes, sir.

Senator MELCHER. And you think it is possible to have a regulated utility with an unregulated affiliate.

Mr. BORRÉ. Well, today there are such entities.

Senator MELCHER. Yes.

Mr. BORRÉ. And the unregulated affiliates——

Senator MELCHER. And you think it can be done properly.

Mr. BORRÉ. Yes, sir.

Senator MELCHER. And you're waiting to see FERC's regulation before you pass judgment—or proposed changes before you pass judgment on that.

Mr. BORRÉ. Along with a lot of other people, yes, sir.

Senator MELCHER. All right. Thank you.

Mr. Anderson, you've stated in your testimony that the commission should have the authority to order construction of new transmission lines. Now, you have both new transmission lines and appropriate modifications, et cetera. But I'm just taking the first part. The commission should have the authority to order construction of new transmission lines. I take it you mean they should order a utility company to build some new transmission lines.

Mr. ANDERSON. Well, my feeling would be that if the utility won't do it and it is defined as a bottleneck, then they should have the authority to order that. That has to be taken in context with the statement a little bit earlier that says that there is a rebuttable presumption that the capacity to wheel exists. That is intended to flush out, if you like, the data from the utilities as to whether there is capacity or not. I think a real problem we face today——

Senator MELCHER. On existing power lines.

Mr. ANDERSON. I'm saying is the capacity there or is the capacity not there.

Senator MELCHER. On existing power lines.

Mr. ANDERSON. On existing lines. Clearly, if there isn't any existing power line, then there isn't any capacity there.

Senator MELCHER. All right.

Mr. ANDERSON. And if the utility would refuse to build a line that the commission said was necessary, then the commission ought to have the authority to order it to be built.

Senator MELCHER. A commission says to a utility show us that you can't wheel. Is that what you're saying?

Mr. ANDERSON. That's correct.

Senator MELCHER. And the commission determines out of that procedure that, yes, indeed, that utility company could wheel 200 megawatts. But there is 400 to wheel. Are you saying that the commission should order them to build some new lines?

Mr. **Anderson**. If that commission has prior to that made a public interest finding, which is the first part—and our position has to be taken I think in its entirety—it has made a public interest finding that the power should move, and it then tells the utility that it is in the public interest for that power to move, and the utility refuses to wheel, then the commission should have the authority to step in, yes.

Senator **Melcher**. Should the commission order the utility to build an additional power line to take it out of its franchise area and down into California where——

Mr. **Anderson**. I in no way mean to try to——

Senator **Melcher** [continuing]. They need power?

Mr. **Anderson**. I in no way mean to avoid the question, but I simply say that if they have made a public interest finding according to the laws and regulations of their particular—that's a hearing. That is where the utilities have come in and have had complete opportunity to put its views in and the rest of the interested parties can. And the commission rules that it is in the public interest. Then, yes, I think so.

Senator **Melcher**. You think they have that authority?

Mr. **Anderson**. No, sir. I don't think that most of them do.

Senator **Melcher**. And when you say "commissions," you use that plural. You are talking about state commissions.

Mr. **Anderson**. We think that there needs to be—we agree completely with NARUC yesterday in its testimony. We think that there is a gray area on jurisdiction of transmission between the FERC and the state commissions, and we think it needs to be clarified. But we certainly believe that there should be intrastate wheeling and interstate wheeling. FERC should have jurisdiction over interstate wheeling, and the states should have jurisdiction over intrastate.

Senator **Melcher**. All right. So, for this purpose for interstate, you're just saying FERC should.

Mr. **Anderson**. Certainly if it's interstate.

Senator **Melcher**. Do you think they have that authority?

Mr. **Anderson**. No, sir.

Senator **Melcher**. You are recommending that they do have that authority.

Mr. **Anderson**. We are recommending for our overall policy that this be the conditions. We think they do have the authority to condition the implementation of competitive bidding on access, and that's our legal memorandum that is attached to that. We think very strongly that there is a parallel to the gas side, certainly a policy one and we think a legal one, where they could condition the implementation of competitive bidding on access. That is a lot different than having the authority to order wheeling.

Senator **Melcher**. Yes, I agree with you. That is a whole lot different.

Dr. Cooper, you in your enthusiasm stated that regulation and increased competition in telecommunications, which I will note—it seems to be under Judge Greene with the AT&T case, which—well, let's not get into a philosophical argument on this. But let me just point out, Judge Greene isn't going to live forever. [Laughter.]

And the way it stands right now, Congress seems to have said, Court, settle it, and the courts have designated Judge Greene. And as long as he has got his pep and energy, I guess maybe Congress is just going to let it sit there. I don't advocate that myself. I think that is unwise. So, is that deregulation? Just yes or no?

Dr. COOPER. Is Judge Greene's oversight over the antitrust?

Senator MELCHER. Is that what you view as deregulation?

Dr. COOPER. It was certainly pro-competitive in its concept. It was under antitrust scrutiny obviously, but it was intended to be procompetitive.

Senator MELCHER. And then after the comma, the airline industry—well, I guess it is increased competition. The whole tone of your enthusiasm is that it is beautiful.

Dr. COOPER. No, quite the contrary.

Senator MELCHER. Oh, okay. I interpreted it wrong.

Dr. COOPER. I have specialized in the down sides of deregulation and the attached documents will show that we have serious complaints with deregulation.

Senator MELCHER. Where are the attached documents?

Dr. COOPER. I have the empirical evidence. But it is clear from that we are concerned about market power, price discrimination, loss of service in low density areas and anti-competitive practices. I have been one of the great nay-sayers around here.

Senator MELCHER. Okay, good. Maybe we'll join forces.

Safety is very important there, isn't it?

Dr. COOPER. In?

Senator MELCHER. For consumers in airline deregulation.

Dr. COOPER. Safety is a major concern of consumers in airline deregulation.

Senator MELCHER. I think a lot of us are having some concern about that, and the same goes for trucking and safety.

But then you seem to reach on page 5 some sort of position on deregulation of railroads. And I guess I just want to know from you what that means. Do you think that where it sits now is good?

Dr. COOPER. Absolutely not. We have supported——

Senator MELCHER. All right. So, what you are saying in all of this is that Congress better keep a hold on this because the label isn't necessarily all that good for consumers—the label of deregulation.

Dr. COOPER. Absolutely. If there isn't vigorous competition, then consumers pay a bigger price than any benefits they get. And that is the crucial question of whether or not competition exists and how you implement it. And clearly in the railroad industry there is not competition for important commodities. In the airline industry we are getting less and less competition. In telecommunications we have less and less real competition. And in the electric utility industry, without key policy changes, you would not have real competition.

Senator MELCHER. All right. Thank you all very much.

The committee will have to take a break now. We have got a very important caucus underway on both sides, Republicans and Democrats. But the committee will resume at 2 o'clock and hear from the third panel.

The committee recesses.

[Whereupon, at 12:57 p.m., the committee was recessed, to reconvene at 2 p.m. the same day.]

AFTERNOON SESSION

Senator **Conrad**. The committee will come to order. I want to welcome this panel to the continuing hearing. We will be hearing from Mr. Ken Lay, Mr. John Kuhns, Mr. Joseph Cresci, Mr. William Nicholson, and Mr. Bernard Cherry. I think all are present, and so without further adieu, we will begin this session of the hearing starting with the statement from Mr. Ken Lay.

I just want to tell all of you that we have 7 minute statement times. And we want you to know that your full statement will be entered into the record. That will preserve sufficient time that we can ask questions to flush out the record So, Mr. Ken Lay, the chairman and CEO of Enron Corp. of Houston, TX.

Mr. Lay.

STATEMENT OF KENNETH L. LAY, CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER, ENRON CORP.

Mr. **Lay**. Thank you, Senator. I would like, first, to say that we are pleased to be here today for the hearings.

Enron Corp. is a integrated natural gas company. We have the largest natural gas pipeline system in the United States, about 38,000 in length and deliver about 15 percent of all the natural gas consumed in the United States. We have the third largest independent oil and gas company and are primarily a natural gas exploration and production company with about 1½ trillion cubic feet of crude reserves. We have a very large liquids business. But our fourth major business line is cogeneration. And over a fairly short period of time, we have become one of the largest cogenerators of electricity with about 900 megawatts net to our interest.

We think there is a very substantial growth of potential for the independent power producing industry. According to the National Electric Reliability Council, the electric industry will probably need approximately 45,000 megawatts of additional capacity by the mid-1990's. According to some estimates, including by the Electric Power Research Institute, as much as two-thirds of that power could come from gas-fired cogeneration or combined cycle power, a very, very substantial market representing an incremental market for natural gas of over 2 trillion cubic feet which, of course, would be very significant growth from current and recent levels.

These units are very attractive for a number of reasons. One is capital cost. The gas-fired combined cycle and cogeneration units typically cost $400 to $600 per kilowatt hour installed. That compares with between $1,000 and $2,000 per kilowatt hour installed for coal plants, and of course, $1,500 to well over $3,000 per kilowatt hour for nuclear.

Of equal importance, given the timing, it takes two to three years from start to finish to build one of these units which, of course, is significantly less than for any other alternative generating source. That is particularly important when we are sitting here in 1988 with the type of requirements that some parts of the country have by the early to mid-1990.

The gas supply available to serve these units is very adequate. Today we have a 9 to 10 year crude supply of gas. By most estimates we have at least a 40 to 50 year supply of potential resources. And, of course, the non-conventional resources would extend well into the next century.

Why do we think that independent power is the answer for the generating requirements for the electric utilities? First, I think just the fact that many utilities today are very reluctant to put major investments into base load power plants. Because of the risks, regulatory risk, the fuel risk, they have experienced the last few years and, of course, the disallowed rate base and other costs, many companies are unwilling today to make major new regulated investments in generating stations.

I think secondly the independent power industry and the cogeneration industry provide a very useful competitive norm for the electric generating industry. I think we have seen that in the cogeneration industry where this has become a competitive factor and, in fact, has forced probably more stringent cost cutting and competitive measures within this industry. And I think further expansion of the independent power industry would likewise be a very helpful competitive discipline for the industry.

There are, of course, a number of barriers to the growth of the independent power sector. I suppose first we would list the problem with being classified, of course, as an electric utility if we don't sell enough steam to qualify under PURPA and thus coming under the jurisdiction of FERC and the Federal Power Act. And to the extent that that happens, we like many of the utilities have the same problem. We would be required to take a great deal of risk in developing and building these plants. And, of course, if that did not work out, it would be on our back. If it does work out, there is very little up side because of the cost of service, rate-making methodology.

I think secondly certainly a problem for the extensive growth of this industry is access to distribution and transmission lines where in many cases these are controlled by the competitors or by utilities that would prefer that the independent power industry not develop.

I think the third major constraint is the Public Utility Holding Company Act problem which will greatly reduce the amount of investment by most corporations because of the very onerous reporting and other requirements of that act. And I believe that act will have to be ultimately either amended or repealed if we are to truly have a strong, growing, viable independent power industry.

I would like to conclude with my five to seven minutes with just a few comments about what I think is evolving here. We believe there are strong analogies between what the gas industry and the gas pipeline industry has gone through the last four or five years and probably what the electric utility industry will go through the next four or five years as we in the gas business have gone from an almost totally regulated business to a largely deregulated and highly competitive business.

Secondly, although this transition will probably be painful, as it was within the natural gas industry, I certainly personally believe that the advantages are very substantial both for the consumer and for the national economy as well.

Third, I think that encouraging the independent power producer is one way, of course, of accelerating the transformation, but also of creating more competition within this industry and thus providing cheaper and I think as reliable or more reliable generating capacity.

And finally, I would say that based upon our review of the FERC staff report of the various hurdles to the independent power industry and the recommendations that that staff report made, we largely concur with those recommendations.

And with that, I'll let me statement stand for the record.

[The prepared statement of Mr. Lay follows:]

TESTIMONY OF

KENNETH L. LAY

CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER

ENRON CORP.

BEFORE THE

UNITED STATES SENATE

ENERGY AND NATURAL RESOURCES COMMITTEE

FEBRUARY 2, 1988

TESTIMONY OF KENNETH L. LAY
FOR
SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
HEARINGS ON INDEPENDENT POWER PRODUCTION

INTRODUCTION

Good afternoon, I am Kenneth L. Lay, Chairman and Chief Executive Officer of Enron Corp. Enron is a diversified energy Company with international operations. The company's core business is the gathering, sale and transportation of natural gas to markets throughout the U.S. In addition, Enron engages in various activities that complement the gas pipeline business, including the exploration for and production of oil and gas; the purchase, production, transportation, distribution, and international marketing and trading of natural gas liquids, crude oil and refined petroleum products; and the production and sale of cogenerated electricity and steam. With more than a half century of proven experience in the energy arena, Enron is committed to being an aggressive performer in energy markets throughout the world.

I am here today because of our interest in the development of the independent power industry. Enron Cogeneration Company is involved in the development, ownership, and operation of large cogeneration and independent power production facilities.
With an ownership position in over 900 megawatts of electrical generation capacity, Enron Cogeneration Company is one of the

Nation's largest cogeneration companies. We are currently actively pursuing a number of additional cogeneration and independent power projects.

We have decided to participate in the cogeneration and independent power production businesses because we see the production of electricity and steam as a profitable downstream integration to our basic energy businesses. While growth in oil and gas consumption has slowed in the past five years due to the OPEC price shocks, electrical generation has continued to grow. Our involvement in the electrical generation business gives us a hedge on our oil and gas businesses and allows us to participate in a strong and growing sector of the energy market.

We also believe that gas-fired electrical generation is currently, and for the foreseeable future, the best technology to employ in terms of incremental electrical capacity. The market tells us this as we compete with other companies to provide electric power to utilities and large industrial users. The reasons why gas-fired technologies are competitive are because of low capital costs, low fuel costs, and the short time it takes to permit and build a gas-fired electrical facility.

The capital cost of large gas-fired cogeneration facilities range from $400 to $600 per kilowatt installed. This compares favorably against coal units where capital costs range from $1000 to $2000 per kilowatt installed and nuclear units where capital costs range from $1500 to over $3000 per kilowatt installed. These gas-fired technologies enjoy a significant capital cost advantage over coal and nuclear technologies.

The deregulation of oil and gas prices has resulted in market responsive prices and brought some balance to supply and demand in the oil and gas market. Gas prices in 1987 were at their lowest levels in the deregulated market for natural gas in this decade. Natural gas reserves in the lower 48 states are approximately 160 TCF in 1987 and excess deliverabilities continue to keep prices low. Gas production in 1987 was approximately 16 TCF implying a reserve to production ratio of 10 to 1. Thus, in terms of both quantities and price, natural gas will remain a very competitive fuel and in plentiful supply for years to come.

Finally, we feel gas is competitive because of the great flexibility it provides purchasers of electrical capacity. Gas-fired combined cycle units can be permitted and constructed in 2-3 years from the date a decision is made to build the project. This is significantly faster than coal or nuclear where permitting and construction times are usually much longer.

OBSERVATIONS ON ELECTRICAL OUTLOOK

I would like to begin my comments on the issue at hand, the regulation of Independent Power Producers (IPPs), by making two observations on trends in the electric power business.

My first observation is that the United States will need additional electric generation capacity in the 1990s. As recently reported by the United States Energy Association (USEA) most forecasts show that the U.S. will need over 80,000 megawatts of additional capacity by the year 1995. As the USEA notes, 30,000 megawatts of this capacity are under construction but many of those plants currently being constructed are nuclear plants which have some probability of being cancelled.

My second observation is that the relationship between investor owned utilities (IOUs) and regulators is changing. In the 1950's and 1960's while electrical demand was growing rapidly and energy prices were relatively stable, investments made by electric utilities in large central station generating plants were routinely included in the utility rate base. With the onset increasing volatility in energy prices and increasing electric bills, however, pressure was put on state public utility commissions to more closely scrutinize the prodence of utility investments. Just as this scrutiny began to intensify, oil and gas prices fell, calling into question the wisdom of many investments in capital intensive generating technologies such as coal and nuclear power. This has become particularly true in the nuclear area, where large expenditures and large cost overruns on nuclear power plants are more commonly being disallowed by public utility commissions. As a result of this changed relationship, many utilities view continued investment in the electrical generation business as asymmetrically risky i.e., a utility has all of the downside of making a generation investment with none of the upside. This is because investor owned utilities are limited on the upside to a regulated rate of return. A public utility commission may, for whatever reason however, view generation investments made by the utility as imprudent and reduce the rate of return to below typical regulated levels.

As a result of these current trends in the electric business, electric consumers are left in a position where more power generation is needed, but utilities are viewing such investment as increasingly risky.

INDEPENDENT POWER PRODUCERS ARE NEEDED

My preceding comments give you a major reason why cogeneration and independent power production is needed in the U.S. electric market. Capacity will be required and cogenerators and independent power producers can provide a source of capacity that might not otherwise be built because of the increasing risk perception of utilities.

Cogenerators are currently filling a part of this supply need. With the passage of the Public Utility Regulatory Policy Act (PURPA) in 1978, cogeneration has become a growth business in the energy sector. Because cogenerators are largely non-regulated and can optimize cost and the degree of leverage, cogenerators can earn a competitive rate of return on their investments. Cogenerators are aware that in most states their rates are subject to regulatory review and that there is some risk of disallowance but because they re not limited to a regulated return they are willing to take these risks.

The supply of cogenerated power however is limited however due to the requirement for cogenerators to construct facilities that have a market for a significant quantity of steam as well as electricity. The steam market is concentrated in steam intensive industries such as chemicals, forestry, and enhanced oil recovery. The cogeneration market is limited to these steam using industries because without a facility having a steam load and qualifying as a cogeneration facility under PURPA, the facility would be classified as a public utility and be subject to traditional utility business restrictions and rate regulations. IPPs can augment the supply of non-regulated electrical capacity provided by cogenerators through investments in electrical generating capacity We and other IPPs are willing to take these risks in reurn for the promise of a rate of return competitive with other investment opportunities.

There are other reasons why both the FERC and Congress should foster the development of IPPs. IPPs add an element of competition to the electrical generation business. As FERC has noted in their recent staff paper "Regulating Independent Power Producers: A Policy Analysis" (October 13, 1987), the economies of scale once associated with large generating stations are no longer evident. Thus the argument that electrical generation is a natural monopoly is false and so is the need for the preservation of a monopoly franchise for electrical generation. Competition in the generation of electricity would provide all the usual benefits associated with competitive markets.

Lastly, many utilities look upon the ability to go out and compete in the generation market as IPPs as a way to get out of their asymmetrically risky situation and as a chance to earn a competitive rate of return for taking some of the risk.

BARRIERS TO IPP GROWTH

At this point I would like to highlight what we view as the main barriers to IPP growth. These barriers include restrictive provisions of the Federal Power Act, the monopoly utilities possess in the distribution and transmission of electricity, and the Public Utility Holding Company Act.

Without a significant steam load, an IPP who wants to produce and sell electricity would be classified as an electric utility wholesaler and would come under the jurisdiction of the Federal Energy Regulatory Commission (FERC) under the Federal Power Act (FPA). Certain companies located in the states of Texas, Hawaii, and Alaska and which are on electric grids not interconnected in interstate commerce do not come under the FPA and are solely regulated by the state. The FPA essentially imposes cost based rate regulation on IPPs, subjects IPPs to extensive reporting requirements, and restricts normal commercial activities, such as issuance of securities and disposal and acquisition of assets.

The second barrier to the development of IPPs is that the distribution and transmission system into which IPPs sell their power is owned by utilities who are direct competitors with IPPs in the generation business. Since in most areas utilities possess a monopoly franchise on distribution and transmission, this creates a situation in which there are potential conflicts of interest on the part of utilities being both the sole purchaser of power in a particular locale and competing with IPPs for the opportunity to supply.

The third restriction on the growth of IPPs is that many highly capitalized companies that would like to participate and compete in the IPP business could become subject to the Public Utility Holding Company Act (PUHCA) if they owned more than 10% of two or more IPPs. PUHCA has a number of onerous restrictions which most large integrated energy companies would not freely choose to accept. These include detailed and expensive reporting to the SEC on all aspects of the company's business, the divestiture of non-electric businesses and SEC approval of all securities transactions, acquisitions and divestitures.

PROMOTING IPP GROWTH

My previous comments outlined the barriers to IPP growth. I would now like to propose to this committee ways to reduce these barriers and promote IPP growth.

I believe the FERC Staff in their recent staff paper "Regulating Independent Power Producers: A Policy & Analysis" (October 13, 1987) has done an excellent job of summarizing the issues and of proposing an alternative policy concerning FERC regulations implementing the FPA. Suffice it to say that I support the thrust of the staff's position to eliminate cost based regulation, remove significant non-rate regulations, and reduce the filing fees on IPPs associated with FPA-related filings.

Addressing the second problem, the fact that IPPs bid to distribution and transmission systems that are owned by utilities which are also competitors in the generation business, I believe a leveling of the playing field is appropriate here. One solution to this problem would be a open access electrical transmission system. This would allow IPPs to sell power directly to either independent distribution companies, utilities located in regions not adjacent to the IPP, and to large industrial companies. In this case the market would decide who was the efficient producers of electricity. An alternative solution to this problem would be greater participation by the FERC and local utility commissions on the awarding of generation contracts based on either avoided cost or negotiated pricing.

The solution to the problem of the PUHCA is simple. It should be repealed by this Congress. It serves no purpose other than to reduce competition in the electric power business and restrict what may be needed consolidations in the electric power industry.

CONCLUSIONS

To summarize our views we think that Independent Power Producers are beneficial to society and that Congress and the FERC should encourage as a matter of policy the growth of the IPP industry.

IPPs can provide for needed incremental electrical capacity in the case where the utilities are becoming more risk averse because of the changing nature of their relationship with regulators. They provide competition in the generation business and they allow investor owned utilities to solve the dilemma of an asymmetrically risky situation concerning generation investments.

We think the staff position on IPPs by FERC is heading in the right direction and wholly support the policy recommendations made in the recent FERC staff paper. We do think however that more is needed. In particular, we think that FERC and the congress should look at methods or reducing the conflicts of interest that currently exist because of a utility monopoly in transmission and distribution within a certain franchise area. This can be done with open access to transmission systems or by the institution of procedures by FERC or by local commissions to insure competitiveness in the purchase of power by utilities from all suppliers including utility affiliates, IPPs, or cogenerators We also strongly feel that Congress should repeal the Public Utility Holding Company Act or at a minimum providing IPPs an exemption from the Public Utility Holding Comany Act to promote more competition in the Electric Power Business.

Thank you and I am prepared to answer any questions.

Senator CONRAD. All I can say is you have the most perfect timing of any witness we have had before this panel.

Mr. LAY. Seven minutes?

Senator CONRAD. Right on the nose.

Mr. LAY. Do I get extra points for that like another 2 minutes? [Laughter.]

Senator CONRAD. No, but your testimony will be printed twice in the record. [Laughter.]

My intention is that we will go all the way through the panel and then we'll have a chance to open it for questions so that everybody has a chance to respond to the questions.

Next we will hear from Mr. John Kuhns, the Chief Executive Officer of Catalyst Energy Corp. of New York who is representing the National Independent Energy Producers. And I hope I have pronounced your name correctly.

STATEMENT OF JOHN D. KUHNS, PRESIDENT AND CHIEF EXECUTIVE OFFICER, CATALYST ENERGY CORP., ON BEHALF OF THE NATIONAL INDEPENDENT ENERGY PRODUCERS

Mr. KUHNS. Thank you, Senator. You did.

Catalyst Energy is an independent power company which sells electricity and steam in a largely non-regulated environment.

I want to thank you, Senator, and also Chairman J. Bennett Johnston and the members of the committee for this opportunity to appear as a witness today on behalf of the National Independent Energy Producers which count numerous independent power producers among its members, and as an organization advocates the growth of the independent power industry at the Federal and State levels.

Today my remarks are intended to address the proposals presently before the FERC involving clarification of PURPA, guidelines for competitive bidding and creation of independent power producers, otherwise known as IPPs, through modification of PURPA, the Public Utility Holding Company Act, or both.

With respect to PURPA, I believe that in general this legislation has been extremely successful. Through its avoided cost mechanism, PURPA has provided the potential framework for lowering incremental costs of electric generation for all types of powerplant facilities.

I believe that the best methodology to achieve a true avoided cost is the competitive bidding process. Competitive bidding makes the incremental price of electricity "market efficient" as opposed to merely the product of an academic exercise. Competitive bidders will in a competitive bidding environment calibrate into their bids everything from availability of fuel to rates in terms of financing to the need of power by the purchasing utility.

With respect to competitive bidding, I can see no reason why competitive bidding in general should not be mandatory. Understandably, situations may arise in which a rate-base, cost-of-service approach to construction by a regulated utility will be the only appropriate alternative. However, I believe these situations should be rare. The construction of incremental generation by regulated utilities on a rate-base, cost-of-service basis should be the alternative of last resort.

Care must be taken so that the bidding rules which replace avoided cost determinations as the primary method of calculating compensation for independent power producers take into account at a minimum fuel and technology diversity, a reasonable mix of renewable and fossil fuel generation, size and capacity allocations to protect against domination by only a few facilities, the risk borne by an independent power producer when it commits its corporate capital, environmental goals, protection against self-dealing by utilities, access to transmission, and protection against short-term foreign dumping of cheap power.

Competitive bidding proposals should also be evaluated on a risk basis as well as a cost basis to the consumers.

The risks to be assumed by the consumers should be a major criteria of any bidding system. Providers of electric generation in the future, like independent power producers today, should provide electric generation capacity while at the same time assuming the risks of construction, completion, technology, performance and financing. As long as the provider of electric generation assumes these risks, the consumer will pay only a pre-set, pre-negotiated price for electricity if and when it is delivered, clearly a benefit to our Nation's rate payers.

Subsidiaries of regulated utilities should also be able to participate as independent power producers in the competitive bidding process outside of their service area as long as rate payer money is not used. Competitive bidding proposals should also contain provisions for dispatchability and reliability, and open access transmission should be required wherever possible.

The single greatest barrier to competition and to the logical development of the independent power industry is the PUHCA law. While PUHCA may have been needed when it was passed in the 1930s, improvements in communications, accounting standards and integrated disclosure laws administrated by the SEC have rendered it anachronistic. PUHCA discourages investment in new generating capacity for the reasons Mr. Lay has already outlined.

If an independent power producer must become a holding company, for example, in order to own and operate a generating plant, it must obtain one of a number of exemptions presently in PUHCA. For example, my own company, Catalyst Energy, in order to develop and build a 192 megawatt hydroelectric project located in Vidalia, LA, entered into Dominion Resources, the holding company for Virginia Electric Power, to jointly own and permanently finance this facility. However, PUHCA barriers almost prevented this clearly advantageous transaction from occurring. Catalyst was forced to migrate to the State of Louisiana and thus avail itself and the transaction of the intrastate exemption under PUHCA, clearly an onerous activity to have to go through.

The other problems stemming from PUHCA are too numerous to mention. I would note that many utilities, as well as IPPs, are calling for its reform. I refer you to the prepared comments which I have submitted to you in advance.

Legislative solutions are available, and I would cite the following proposals as the practical legislative solutions which should be considered by this committee in order to achieve legislative reform of PUHCA. Number one, amend the PUHCA definition of electric utility to conform to that of a gas utility under PUHCA, or to specifically exempt generation facilities owned and operated by QFs and IPPs with no transmission or distribution systems; amend PURPA to permit FERC to exempt QFs and IPPs without distribution systems; three, add an exemption from registered holding company status under PUHCA for QFs and IPPs.

Not to try and beat Mr. Lay, I do have additional testimony, but I think I'll conclude to things under wrap. Thank you, sir.

[The prepared statement of Mr. Kuhns follows:]

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JOHN D. KUHNS
President and Chief Executive Officer
Catalyst Energy Corporation

Founding Member - National Independent Energy Producers

Comments Submitted to the
United States Senate
Committee on Energy and Natural Resources

February 2, 1988

My name is John D. Kuhns and I am President and Chief Executive Officer of Catalyst Energy Corporation. Catalyst Energy is an independent power company which sells electricity and steam in a largely non-regulated environment. We produce our electricity and steam from a wide mix of generation resources of all sizes and fuel types around the country. I want to take this opportunity to thank Chairman J. Bennett Johnston and the members of the Committee for this opportunity to appear as a witness today on behalf of the National Independent Energy Producers ("NIEP") which counts numerous independent power producers among its members and as an organization advocates the growth of the independent power industry at the Federal and state levels.

I. Summary

Today my remarks are intended to address the proposals presently before the Federal Energy Regulatory Commission ("FERC") with respect to (1) clarification of certain requirements of the Public Utility Regulatory Policies Act of 1978 ("PURPA"); (2) provision of guidelines for the use of competitive bidding for incremental electric generation facilities; and (3) creation of a new category of independent power producers through the removal of the restrictions inherent in the Public Utility Holding Company Acct of 1935 ("PUHCA").

The FERC is considering these proposals in order to enhance competition within the electric power industry in a way that will provide clear benefits to American consumers through high-quality and reliable electric service at a lower cost.

Many have questioned whether or not the FERC proposals are really necessary; many have also stated that due to issues such as the "obligation to serve" and reliability, that no companies other than the present well-established regulated utilities can adequately play the role contemplated by the FERC proposals. As to whether the proposals are necessary, I believe that any well conceived system of proposals which reduces incremental generating costs without sacrificing reliability is an obvious necessity. As to whether or not an independent power producer ("IPP") can be reliable, I merely point to my own company, which, with respect to finances and capacity, is already more substantial than several of the nation's established utilities.

With respect to PURPA, I believe that this legislation has been extremely successful. Although originally enacted to diminish the use of foreign oil, PURPA has created a revolution in the electric industry, and through its "avoided cost" mechanism has provided the framework for lowering incremental costs of electric generation for all types of power plant facilities. PURPA's major flaw has been the inconsistent implementation of the avoided cost mechanism. However, many of the resultant problems have already been solved, and the remaining ones can be corrected.

With respect to competitive bidding, I believe:

(i) it should, in most cases, be mandatory;

(ii) the construction of incremental generation by regulated utilities on a rate-base, cost-of-service basis should be the "alternative of last resort";

(iii) subsidiaries of regulated utilities should also be able to participate as independent power producers ("IPPs") in the competitive bidding process outside of their own service area as long as ratepayer money is not used;

(iv) competitive bidding proposals should be evaluated on not only cost, but risk allocation;

(v) competitive bidding proposals should contain provisions for dispatchability and reliability;

(vi) open-access transmission should be required wherever possible.

With respect to IPPs, they should be defined as entities that produce and sell electricity and realize revenue on a market price, rather than a cost-of-service basis. The shareholders of these entities, not ratepayers, should bear all risks of profit or loss. With respect to such entities, the FERC should exert only minimum, if any, economic regulation. IPPs should also be able to, within the above constraints, own any type of electric generating facility.

These changes will necessitate one of the following:

(i) expansion of the "qualifying facility" language of PURPA, or

(ii) amending PUHCA and, to a lesser extent, the Federal Power Act ("FPA").

II. Catalyst Energy Corporation and Members of the NIEP - Products of the Entreprenurial Window Created by PURPA

In a general sense, we are all here today because of the widespread effects of PURPA. My company, Catalyst Energy, is an example of what one enterprise has been able to do under the aegis of PURPA. Catalyst Energy is today a diversified supplier of electricity and steam from many types of generation assets, with 30 facilities in over 20 states generating over 1,100 megawatts of capacity on-line or under construction as well as over 16 billion pounds of steam.

Catalyst is the leading independent power producer in the country and the nation's second largest steam utility. Having gone public only three years ago, Catalyst Energy today has assets of around $1 billion, revenues of around $450 million and market value of several hundred million dollars. In effect, we and other members of the NIEP are as substantial as some of the nation's regulated utilities, are staffed with similar personnel, and own power plants built, engineered and serviced by the same vendors. Our industry and our shareholders have borne the risks and the costs of construction of a new generation of power producing facilities - both benefiting the nations' ratepayers and furthering our industrys' credibility.

The key to the success of Catalyst Energy and the other members of the NIEP has been the entreprenurial opportunity window in the electric power industry created by PURPA. Today, this entreprenurial window is restricted. By opening it up through implementation of the FERC proposals, the same entreprenurial, market-driven approach that has advanced the nation to this point can be applied to have the same impact throughout the entire electric industry.

III. Clarification of Certain Requirements of PURPA

In the proposals before the FERC, there has been extensive discussion concerning many aspects of PURPA. I feel that it is clear that while PURPA has had flaws, its concept has been extremely beneficial to the American ratepayer. By better implementation of PURPA's "avoided cost" concept, I believe the major problems within PURPA will be eliminated.

The price paid for electricity by a regulated utility purchaser to a qualifying facility supplier should be the "true" avoided cost. This cost is best defined as the cost of all market forces working to reduce the incremental price of electricity to its lowest level. I believe that the best methodology to achieve such a true avoided cost is the competitive bidding process. Competitive bidding makes the incremental price of electricity "market efficient" as opposed to merely the product of an academic exercise. Competitive bidders will calibrate into their bids everything from availability of fuel to the rates and terms of financing to the need of power by the purchasing utility.

In the past, state regulatory commissions and regulated utilities have tried to project, or, in effect to guess, the avoided cost, which has in some cases led to expensive mistakes. In other cases, state legislators have mandated a "floor" cost in the interest of providing a further local incentive to qualifying facility development. Finally, utilities have been required to pay for capacity which they do not require. These are all products of good intentions, but poor implementation of the avoided cost concept of PURPA, and should be eliminated.

IV. Guidelines for Competitive Bidding

The way to achieve the true avoided cost is through the use of market forces. One of the best vehicles to achieve this end is the use of competitive bidding. The major goal of competitive bidding should be to lower the costs as well as the risks to the ratepayer.

I can see no reason why competitive bidding in general should not be mandatory. Understandably, situations might arise in which a rate-base, cost-of-service approach to construction by a regulated utility will be the only appropriate alternative. However, I believe these situations will invariably lead to higher cost electricity than would otherwise be available in a market driven, competitive bidding scenario.

Care must be taken so that the bidding rules which replace avoided cost determinations as the primary method of calculating compensation for independent power producers take into account at a minimum (i) fuel and technological diversity, (ii) a reasonable mix of renewable and fossil fueled generation, (iii) size and capacity allocations to protect against domination by only a few facilities, (iv) the risk borne by an independent power producer when it commits its corporate capital to the fixed price construction, technological integrity, performance and financing of a facility, which risk inures to the benefit of our nation's ratepayers, (v) energy related environmental goals, (vi) protection against self-dealing by the utilities, (vii) access to transmission and non-discriminatory wheeling rates, (viii) clarification of the roles of host and neighboring utilities and (ix) protection against short-term foreign dumping of cheap power.

The goal of any bidding system should be to provide the ratepayers with the lowest cost, least risk and most efficient energy production possible while encouraging broader markets and greater transmission capacity for energy within regional markets. In this manner the ratepayers will benefit from lower cost electricity and the industry will be poised to respond to the anticipated energy shortages in the 1990's and beyond. In any such scheme, the utility should be the bidder of last resort and be held to a fixed-price for construction. This fixed-price, set by the utility, would be the price against which the independents would bid. If the independent power producers are unable to meet or beat that bid, then the utility itself would construct the facility. The regulations should, however, safeguard against the utility trying to "low-ball" the independent power producers by prohibiting the utilities from passing any cost increases above this fixed price on to the shoulders of the ratepayers.

The risks to be assumed by the consumers should also be a major criteria of any bidding system. Providers of electric generation in the future, like independent power producers do now, will provide electric generation capacity while assuming the risks of construction, completion, technology, performance and financing. As long as the provider of electric generation assumes these risks, the consumer will only pay a pre-set, pre-negotiated price for electricity if and when it is delivered -- clearly a benefit to our nation's ratepayers.

V. Creation of a New Category of IPPs

The practical definition of an independent power producer now emanates from PURPA. This definition is too restrictive and should be expanded, which will by necessity involve amendment to either PURPA, PUHCA, or both.

Independent power producers are entities which produce and sell power at a market price, rather than a cost-of-service, price. IPPs are, by definition, "independent", i.e., not reliant on retail service franchises or rate-base, rate-of-return revenues. As such, they rely only on their own stockholders' equity in incurring the risk of profit or loss associated with their enterprise. IPPs are the entrepreneurs cited above who have through their market-driven search for returns lowered the cost of incremental electricity. However, their ability to compete across the spectrum is today restricted by PURPA, PUHCA and, to a lesser extent, the FPA.

a. PUHCA IMPEDIMENTS TO THE COMPETITIVE POWER INDUSTRY

The single greatest barrier to competition and to the logical development and maturation of the competitive power industry is PUHCA. While PUHCA may have been needed when it was passed in the 1930's, improvements in communications, accounting standards and integrated disclosure laws administered by the Securities and Exchange Commission (the "SEC") have rendered it anachronistic. Today the economic costs of its cumbersome procedures, the inflexibility of interpretation by the SEC staff, and draconian consequences for actions in violation of PUHCA far outweigh its intended protections against the practices which it identifies as injurious to investors, consumers and the general public -- all of which are currently either outlawed by other means or outmoded by current business practice.

A. PUHCA Discourages Investment in New Generating Capacity

Almost no investor is willing to become subject to SEC regulation under PUHCA as a holding company (even an exempt one) in order to invest in a non-QF generating plant. According to the language of PUHCA any company that "owns, holds or controls with power to vote" ten percent or more of an electric utility's or a holding company's voting securities is automatically a holding company. This makes it virtually impossible for an independent power producer to find investors to take a large share of voting stock in a generating plant project.

Further, entities owning less than ten percent of a utility's voting securities may nevertheless be declared to be a holding company if the SEC finds that they control or have "an arrangement" with others to control an electric utility or holding company. This makes it difficult to put together a group of investors or to find a general partner for a partnership to finance a generation project. Worst of all, the SEC staff has refused in at least two cases to agree that limited partners, with no voting rights, would not be declared to be holding companies. Thus, even passive investors in generation projects are not assured that they will not be regulated.

The potential for becoming a holding company, therefore, severely limits the types of investors and the choice of financing vehicles available to independent power producers. Independent power producers may not only have to pass up the least-cost financing, such as master limited partnerships, but may also be unable to obtain sufficient financing at any acceptable cost because of PUHCA.

B. The Agency Charged With Enforcement Has Called for the Repeal of PUHCA

Independent power producers are not the only ones calling for a roll-back of PUHCA jurisdiction, the SEC itself has called for the repeal of PUHCA. In a letter to the General Accounting Office, Daniel L. Goelzer, General Counsel to the SEC, questioned whether such regulation was desirable or even necessary at the federal level when he set forth the SEC's position regarding PUHCA(1). He stated:

> "Registered public utility systems are the only entities over which the Commission has such authority; the Commission has no such comprehensive authority over other types of utility or non-utility holding company systems or over the approximately ninety holding company systems exempted from the 1935 Act pursuant to Section 3(a) thereunder. The development of the securities registration and corporate disclosure requirements under the Securities Act of 1933 and the Securities Exchange Act of 1934, the evolution of the federal securities laws relating to fraud, and the increased sophistication of the accounting profession have significantly increased the level of investor protection beyond that existing in 1935. Accordingly, the Commission believes that

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1 Letter dated April 29, 1983 and included as Appendix III to the GAO's Analysis of the SEC's Recommendation to repeal PUHCA dated August 30, 1983.

> the Act does little to safeguard investors and the public interest from the risks of improper sales practices and abusive corporate management and control in utility holding companies. Moreover, in the event the 1935 Act is repealed, securities issuances, utility acquisitions, and affiliate transactions by companies engaged in wholesale sales of electric energy in interstate commerce would be subject to regulatory scrutiny by the Federal Energy Regulatory Commission...or by state [PUC's]."

C. Narrow Exemptions From Registration Inhibit Independent Power Producer Operations

If an independent power producer itself must become a holding company in order to own and operate a generating plant, it must either obtain an exemption under Section 3(a)(1) of PUHCA pursuant to which it must be organized and substantially operating in a single state or become regulated by the SEC in almost all aspects of its business as a registered holding company. Without another available exemption, this restriction makes it impossible for an independent power producer to use its expertise in financing and constructing geographically diverse generating plants and to own such plants wherever they are most needed and can most feasibly be bought or built.

A case in point is Catalyst Energy's 192 megawatt hydroelectric project located near Vidalia, Louisiana. Last September Catalyst entered into a purchase agreement with Dominion Capital to jointly own and permanently finance this facility. PUHCA barriers, however, almost prevented this initially advantageous transaction from occurring. Catalyst was forced to migrate to the state of Louisiana and thus avail itself and the transaction of the 3(a)(1) intrastate exemption under PUHCA. This is a ridiculous outcome and a clear example of excessive government regulation truly run amuck. While the substance of the transaction is unchanged, the additional burdens and expenses of sending a proxy statement to shareholders and calling a Special Meeting of Shareholders to approve the migration along with the uncertainties of uncharted legal issues in Louisiana and the costs of additional local counsel for all future transactions have unnecessarily burdened Catalyst and added additional time and money to the costs of the transaction. The SEC estimated in 1983 that, exclusive of costs attributable to SEC staff delays, PUHCA annually costs the twelve registered holding companies over $3 million. A greater cost, yet more difficult to estimate, relates to the foregone business opportunities and financings due to the smothering effect of PUHCA upon the competitive power industry. Indeed, regulated utilities which wish to join with independent power producers in power plant projects are equally limited by the geographical restraints and the delay problems resulting from PUHCA regulation of generating plants. Thus, utilities are ironically forced to invest more frequently in airplanes and boxcars than in the utility business they know best and which would profit from their expertise. These restrictions, costs and delays adversely affect registered utilities, independent power producers and passive investors and are clearly unconscionable.

D. Acquisition of a Second Plant Must be Approved by SEC Under Restrictive Rules

If an independent power producer wishes to expand and buy a second power plant, PUHCA will probably control and may well prevent the acquisition. Section 9(a) requires any person to obtain SEC approval to buy 5% or more of the voting stock of a second utility if the person owns 5% or more of the voting stock of another utility or holding company. The real catch is that, under Section 10, the SEC will not approve the acquisition unless it finds (among other things) that the acquisition tends toward the development of an "integrated public-utility system." Such a requirement, like the 3(a)(1) geographic restrictions, prohibits or severely restricts the development of power plants by the competitive power industry wherever they can best be built since they would presumably not be part of an "integrated" system.

E. Delay May Scuttle Acquisition

In addition to the "integrated system" restriction, Section 10 proceedings are notoriously slow. The friendly Centerior merger took the SEC one year to approve and the approval of the American Electric Power/Columbus and Southern Ohio Company transaction required more than ten years. Such glacial movement makes an unfriendly takeover of a poorly managed utility by an independent power producer unlikely, and might make even a friendly acquisition impractical due to, among other factors, the vagaries of the capital markets.

F. Staffing at SEC Exacerbates PUHCA Problems

The many restrictions imposed by PUHCA are exacerbated by the small staff which currently handles all PUHCA exemption questions. The staff lacks the time and resources, as well as apparent guidance from the Commission itself, to study new ideas or to initiate interpretations of PUHCA that would more accurately apply the intent of its drafters to today's evolving utility industry. Thus, any discretion which Congress gave to the SEC to relax PUHCA constraints in certain areas is not being exercised.

b. SUGGESTIONS FOR THE REMOVAL OF PUHCA IMPEDIMENTS THROUGH LEGISLATION

A. Amend PUHCA Definition of "Electric Utility"

The most straight-forward approach to removing PUHCA impediments to the competitive power industry would be to conform the PUHCA definition of "electric utility" to that of a "gas utility" under PUHCA and limit it to facilities used for the distribution of electric energy at retail. If the electric transmission grid is thought to be fundamentally different from the nation's natural gas pipeline system, PUHCA "electric utilities" could include transmission as well as distribution facilities. However, as in the case of gas producers, competitive independent power producers should be relatively free to explore new opportunities and technologies and should be encouraged to compete and expand their facilities -- to the benefit of ratepayers and shareholders alike.

Alternatively, the PUHCA definition of "electric utility" could be amended to specifically exempt generation facilities owned and operated by independent power producers with no transmission or distribution systems. In the interest of fairness, this exception should include generation facilities owned or partially owned by utilities or utility holding companies outside their franchise areas or, to use FERC's term, "zones of influence". Such an exemption would leave intact the current registered holding company systems, but would free the competitive power industry from the geographical and other restraints of PUHCA which were never intended for them.

B. Amend PURPA to Permit FERC to Exempt Independent Power Producers Without Distribution Systems From PUHCA

The independent power industry grew out of and continues to advance the original goal of PURPA, which was to provide the nation with a reliable, independent source of electric generating capacity that didn't use foreign oil. In recognition of this, PURPA could be amended to permit FERC to exempt independent power producers in addition to qualifying facilities from PUHCA.

Independent power producers need no other PURPA benefits, such as forced purchases or avoided cost pricing, and would not receive them under this amendment. Nor should independent power producers be exempted from state laws or from FERC regulation where applicable. However, the independent power industry should be freed from restrictive and burdensome PUHCA regulations which were not designed with them in mind.

C. Add an Exemption to Section 3 of PUHCA For Independent Power Producers

A specific PUHCA exemption from registered holding company status could be crafted to include independent power producers and utilities owning generating plants outside their zones of influence. However, such exempt holding companies would remain subject to the "two-bite" rule of Sections 9(a)(2), so, unless otherwise cured, this would be only a partial and less favorable solution.

c. ADDITIONAL PURPA REFORM

Presently PURPA has restrictions which apply to production of electricity from cogeneration resources which do not meet certain thermal efficiency criteria. These restrictions were proper within the original intentions of PURPA. However, today any qualifying facility which produces electricity at lower rates should be permitted, as the real goal should be to lower incremental electric costs, not to merely enhance thermal efficiency.

d. THE FEDERAL POWER ACT'S BARRIERS TO COMPETITION

FERC has already shown that it can be innovative in its interpretation of the Federal Power Act (the "FPA") and that it recognizes that market forces are effective regulators. FERC's independent bidding proposals are one example of its commitment to competition within the industry. Catalyst along with the independent power industry applauds these recent developments.

Unfortunately, the FERC has also attempted to expand its jurisdiction under Section 203 to include changes in ownership of utility securities. We hope that the FERC will reconsider its jurisdictional interpretations in this area, since they appear ill-founded and could have a serious chilling effect on potential reorganizations in the utility industry that would enhance bulk power supply competition. At a minimum, if the FERC's expansion of jurisdiction over restructurings is upheld, the Commission should request legislation granting it exclusivity in reviewing such transactions and it should be prepared to move quickly so that market realities and sound economics, rather than regulatory delay, will determine the outcome of restructuring proposals.

In Section 201(b) of the FPA, FERC jurisdiction is explicitly stated to exclude generating facilities as well as local distribution. Section 204 gives the FERC jurisdiction over the issuance of securities by a utility if no state commission has jurisdiction. In recent orders (such as Catalyst Energy's Alamito transaction) FERC held that a generation company which owned no transmission facilities was subject to Section 203 when it merged into a company that was previously not a utility and that securities issued by that company prior to the merger were in effect issued by the utility and therefore an application should have been filed. While the Section 203 portion is being challenged, this expansion of FERC jurisdiction if permitted to stand will chill the potential reorganization of the utility industry. The redundancy caused by PUHCA and FPA regulations only create a climate of stagnation and uncertainty for our industry.

e. ADDITIONAL CONSIDERATIONS FOR IPPS

Additional considerations for IPPs include dispatchability, reliability, transmission access and prohibitions against intermingling of ratepayer and stockholder funds. While these subjects are all too lengthy to consider here and will undoubtedly be the subject of additional discussions in the future, I believe:

(i) IPPs should agree to full dispatchability of their plants and should also award foreclosure rights to purchasing utilities to remove any issue of service availability. Obviously both sides will need to be compensated at a level commensurate with the risks taken in such an agreement;

(ii) Open access to transmission should be made available at competitive rates; and

(iii) Of critical note, regulated utilities who also act as IPPs should be carefully monitored so that ratepayer funds are not used for shareholder IPP activities.

The major proponents of the policy changes inherent in PUHCA reform, FERC has included an extensive discussion in its October 13, 1987 staff policy analysis (p. 61-68) of potential ownership problems of IPPs and definitional methods for alleviating them. FERC defines IPPs as "producers other than QFs that are unaffiliated with franchised utilities in the IPPs market area and that, for other reasons, lack significant market power." FERC further notes that "the profitability of an IPP is derived solely from its ability to deliver lower cost, reliable power and its willingness to consume investment risks."

To the extent that PUHCA is amended to permit wider ownership of IPPs by utility affiliates or their parents, special care must be taken to safeguard ratepayers against cross-subsidies and unfair competitive practices which could limit rather than encourage IPP participation.

VI. Conclusion

I hope that the thoughts which I have submitted to you today on behalf of the NIEP have conveyed Catalyst Energy's conviction that independent power production is both a vital and positive force which is critical to our nation's energy future; however, care must be taken to safeguard that industry from the anticompetitive proclivities of certain utilities and to encourage its growth and expansion by the removal of certain antiquated statutory and regulatory restraints from the shoulders of both independent power producers and the electric generation subsidiaries of regulated utilities.

Catalyst has called upon Congress to enact legislation which would embrace those independent power producers who desire to efficiently construct and operate larger power plants and to permit them to do so without the encumbrances which, as I have previously cited, are presently placed upon them by PURPA, PUHCA and the FPA.

The independent power industry is in the best position and truly has the greatest incentive to embrace new technology and new financing techniques. In order to permit the independent power industry to thrive in a competitive and profitable environment, it is NIEP's position that the antiquated legal restraints, such as those embodied in PUHCA, must be summarily done away with. This will benefit the independent power producers and their stockholders, will permit those utilities who so choose to create competitive generating subsidiaries and otherwise to concentrate on the distribution and transmission of power and will ultimately result in greater reliability and, importantly, a significant economic benefit to our nation's ratepayers - both large and small. It is our belief that it is the responsibility of the members of this Committee to take the lead in enacting the necessary legislation so that our nation and our industry will be able to act upon, rather than react to, our nation's anticipated energy needs.

Senator **Conrad**. Thank you, Mr. Kuhns.

Next we will hear from Mr. Cresci who is the president of Environmental Power Corp. of Boston, MA. Mr. Cresci.

STATEMENT OF JOSEPH E. CRESCI, PRESIDENT, ENVIRONMENTAL POWER CORP.

Mr. **Cresci**. Thank you, Senator, and thanks to the committee for the opportunity to appear today.

The Environmental Power Corp. is based in Boston. We have offices in Vermont, Pennsylvania, Colorado and Texas. Environmental Power has 12 power production facilities in operation or various stages of development. All are qualifying facilities and all utilize alternative fuel sources only. When complete, these projects will involve more than $1 billion in investment.

None of this money will be at risk to rate payers. If our plants don't come on line or if they otherwise fail to generate outputs, only Environmental Power and its financial backers lose their money. Rate payers do not get the call to bail us out.

We favor a truly competitive system. We believe that competition is the norm for providing most cost effective and reliable services to consumers in this country and do not believe it should be different for power generation. For retail distribution where the obligation to serve is required by overriding public concerns, the monopoly model may be appropriate. As for generation, monopoly is not only unnecessary, we believe it has resulted in higher cost to rate payers based on cost-plus pricing and payment by rate payers for abandoned projects which will never generate any power. When regulators attack that concern through prudency audits and disallowance of certain costs, the utility industry appears to have responded with a curtailment of additions to the utility system. I don't believe that that is a system that works.

If my plants do not operate, my company and I lose our economic lives. No regulatory proceedings, no delays, no bail-outs from rate payers. Further, under a competitive bid system, our plants only get built when the host utility and the state PUC request it. We believe that that helps to minimize the risk of overbuilding by QFs or by utilities.

Let's examine some of the arguments that we have been hearing for the last 2 days concerning opposition to competitive bidding. One was that the system "ain't broke." I submit that it is broke. We have tremendous imbalances of capacity in various regions of the country, virtually no utility construction to address anticipated future needs, rate payers paying for generating capacity that won't go on line, costs to rate payers that are higher than necessary or appropriate.

A second argument is that competitive bidding isn't reliable. I believe this argument is a paper tiger at best. The same engineers and constructors build our plants as build for the utility industry. Our power sales contracts almost always include language under which we are mandated as to both the quality and the performance of our facilities, and they have penalties designed to compensate the utilities and the rate payers from any loss or inconvenience.

Another major factor is that neither lenders nor equity investors commit their money without maximum assurance that projects will generate adequate energy to provide the expected revenues.

Finally, smaller sources of power are mixed into the utility systems which can be specified by the utilities or the state regulators. There is a distribution of risk to rate payers which I think is an important element in preventing any one failure to weaken the system. We from New England are acutely aware of that right now. When you have to think about the fact that it would take 100 failures of the type that was talked about this morning of that 10 megawatt cogenerating plant or 25 failures of one of our 40 megawatt waste coal plants to equal the loss of one Seabrook to the system.

A further point should be mentioned here. Competitive sourcing for power generation will only affect incremental additions to the Nation's power generating capacity. It is estimated that there is around 600,000 megawatts of capacity currently available with about 120,000 megawatts of that considered reserve. If the estimates that there is 100,000 megawatts of new power needed for growth and replacement between now and the end of this century, it seems that the policymakers will have many years to assess the impact of their present decisions without risk to rate payers. The point is that this is an evolutionary process without the potential for crisis that people have said.

Another argument against competitive bidding is that it is a capital intensive business and projects may be over-financed. Our projects are among the capital intensive type since we don't incur a commodity fuel risk. We still find that capital is available, and the presence of our company and the projects that we are generating and others like us seem to evidence that.

Would a project be over-financed and then abandoned at the expense of reliability? I believe the answer is no. We can't move a plant when it is built. They have very little salvage value. The only way out for owners and lenders is to be very careful getting in and to keep on generating power and thereby revenue.

In addition, the utility contracts have security clauses. Many of them have takeover provisions. Certainly the lender documents all have those same things because they are concerned in maintaining that cash flow. I don't feel that that is an argument that makes any sense to me at all. I think all this assures, frankly, that careful analysis is done before the plant is built. And I think that is considerably better than after-the-fact prudency audit procedures and negotiating the best of a worst case.

As I said before, we feel that a truly competitive system is a good one. The competitive bidding approach is potentially the best one if it is fair and equitable. Frankly, I believe that the committee is going to have to help to make the marketplace one of equal opportunity. Bidding systems can be good or they can be bad. A lot depends on who writes the rules. If they are bad and developers like ourselves do not go near them, then our staying away is a loss to the rate payers for whatever we might have provided.

I think the elements of a fair system include the following: protection against abuses associated with self-dealing by utilities. Remember, there exists among many utilities a predisposition to favor one another and to oppose independents if only because we are the harbingers of change.

A second major element is the establishment of clear criteria which permit all parties to determine whether to compete. Complex, vague, very costly pre-bid criteria favor the local utilities and favor others with strong local knowledge if only because their assessment of whether to participate is better grounded than people who are going to have to take a stab at something that is vague and without a significant amount of control over how the decision process is made.

A further element is the identification by the state of guiding policies which are part of their energy agenda. Policies concerning fuel sources, siting, any other limits to energy policies should be established up front. I don't believe that it matters what those policies are as long as they are made clear to competitors before they get involved in the process. As much as possible, such policies should preclude subjective evaluation of bids that can justify any outcome.

Another element that we believe is critical is incorporation of wider access to transmission systems. Important concerns such as reliability and system control can be addressed either through specific regulation at the State level or by allowing utilities an adequate level of control and establishing procedures for redress of grievances for abuse of that control which can be handled at the State regulatory level.

Finally, exemption from Public Utility Holding Company Act of energy producers who are not vertically integrated to me makes sense. Most aspects of PUHCA regulation at best cause unnecessary expense and distortions along the lines that Mr. Kuhns testified to before. I don't believe that they are necessary from a policy perspective any longer.

I hope my comments have piqued your interest. We are talking about something here that we believe is an evolutionary process, and we believe that given an opportunity, this committee and the regulators will have an ample opportunity to follow through with a slow and orderly transformation to a more competitive system. Thank you.

[The prepared statement of Mr. Cresci follows:]

STATEMENT OF JOSEPH E. CRESCI
PRESIDENT, ENVIRONMENTAL POWER CORPORATION
Before
THE COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE
February 2, 1988

Good Morning. My name is Joe Cresci and I am President of EPC, Environmental Power Corporation, which is based in Boston, Massachusetts and has offices in Vermont, Pennsylvania, Colorado and Texas.

EPC has twelve power production facilities in operation or various stages of development. All are Q.F. facilities utilizing alternative fuel sources. When complete, these projects will involve more than $1 billion in investment.

None of this money will be at risk to ratepayers. If our plants don't come on line, or if they otherwise fail to generate expected outputs, only EPC and its financial backers lose their money. Ratepayers will not get the call to bail us out.

We favor a truly competitive system. We believe that competition is the norm for providing the most cost effective and reliable services to consumers in this country and do not believe it should be different for power generation. For retail distribution, where the obligation to serve is required by overriding public concerns, the monopoly model is appropriate. As for generation, monopoly is not only unnecessary, it has resulted in higher costs to ratepayers based on cost plus pricing and payment by ratepayers for aborted projects which will never generate any power. When regulators attacked that concern through prudency audits and disallowance of certain costs, the utility industry responded with a curtailment of additions to the utility system. Is that a system that works??

If my plants do not operate, my Company and I lose our economic lives. No regulatory proceeding, no delays, no bail outs for ratepayers -- I simply lose. Further, under a competitive bid system, my plants only get built when the host utility and the state P.U.C. requests it. So the risk to ratepayers of overbuilding by QF's or utilities is eliminated.

What are the arguments against competitive bidding?

1. The system "ain't broke" -- I submit that it is "broke"! We have tremendous imbalances of capacity in various regions of the country, virtually no utility construction to address anticipated future needs, ratepayers paying for generating capacity

that will never go on line, and costs to ratepayers that are higher than necessary or appropriate.

2. Competitive power isn't reliable... This argument is a "paper tiger" at best. The same engineers and constructors build our plants as build for the utility industry. The power contracts under which we operate mandate quality and performance and have penalties designed to compensate the utility for any loss or inconvenience. Neither lenders nor equity investors will not commit their money without maximum assurance that our projects will generate adequate energy to provide expected revenue. Finally, since smaller facilities and a "mix" of sources can be specified by utilities and or state regulators, there is a distribution of risk to ratepayers to prevent any one failure to weaken the system -- this is certainly better than we are seeing in New England these days!

A further point should be mentioned here; competitive sourcing for power generation will only affect incremental additions to the Nation's power generation capacity. Of the 600,000 MW of capacity currently available, approximately 120,000 MW are considered reserve. Therefore, the 100,000 MW estimated for growth and replacement over the next decade will necessitate that policymakers will have many years to assess the impacts of their present decisions without risk to ratepayers. This is an evolutionary process without potential for crisis.

3. This is a "capital intensive" business and projects may be overfinanced. Capital is available, the presence of EPC's projects and those of others here today are evidence of that. Would a project be overfinanced and then abandoned at the expense of reliability? No!

   We can't move the plant, and the only way out for owners or lenders is to keep on generating revenue. In addition, utility contracts have security and take over clauses in them as do lender documents. All this assures careful analysis before the plant is built, which is somewhat different than "after-the-fact" prudency audit procedures.

For these reasons, I believe that the competitive bidding approach is potentially the best one so long as it is a fair and equitable one. Frankly, I need the members of this Committee to help make the market a place of equal opportunity. Bidding systems can be good or they can be bad. There are some I will participate in, there are others I will not go near. If I stay away, the loser is the ratepayer who is denied the opportunity I can provide. We need a fair system.

The elements of a fair system have been discussed by other witnesses and are elaborated upon in great detail in my written remarks. Several of the major points that must be addressed to make the system truly competitive are:

- Protection against abuses associated with self-dealing by utilities. Remember, there exists among many utilities a predisposition to favor one another and oppose independents, if only because we are the harbingers of change.

- Establishment of clear criteria which permit all parties to determine whether to compete. Complex and very costly pre-bid criteria favor local utilities and others with strong knowledge of local needs, concerns and politics, since their assessment of whether to participate is better-grounded than that of an outsider.

- Upfront identification by the state of guiding policies as clear criteria:

  -- Policies concerning fuel sources, siting or any other limits of energy policy should be established up front. It matters less what these policies are, so long as competitors are made aware of them before they bid. As much as possible, such policies should preclude subjective evaluation of bids that can justify any outcome.

- Incorporation of wider access to transmission systems must be an element of bidding. Important concerns, such as reliability and system control can be addressed either through specific regulation, or by allowing the utilities an adequate level of control and establishing procedures for redress of grievances before the state regulatory utility commission.

- Exemption from Public Utility Holding Company Act of energy producers who are not vertically integrated. Most aspects of PUHCA regulation cause unnecessary expenses and are not needed from a policy perspective.

I hope that my comments today have piqued your interest. Give me, and others like me, the chance we deserve, and see what we can do. We're not talking about anything that is revolutionary or will overnight transform the industry. The change will be incremental, with time for adjustment and correction. But, we must start with a sound foundation.

Thank you. I will be happy to answer questions.

Senator CONRAD. Thank you, Mr. Cresci.

Next we will hear from Mr. William J. Nicholson, the manager of Corporate Energy Services, the Potlatch Corp., San Francisco, CA. Mr. Nicholson.

STATEMENT OF WILLIAM J. NICHOLSON, MANAGER, CORPORATION ENERGY SERVICES, POTLATCH CORP. ON BEHALF OF THE AMERICAN PAPER INSTITUTE

Mr. NICHOLSON. Thank you, Senator. I am here on behalf of American Paper Institute.

API believes that the pulp, paper and paperboard industry's twin roles as a major consumer of electric power and as a major nonutility cogenerator and self-generator for electricity give it a unique perspective on FERC's proposals on competitive bidding, independent power producers and avoided cost methodologies.

The paper industry's experience gleaned from the involvement in cogeneration in a majority of states reveals that the current program is working well. States are not implementing the Federal program uniformly, but that is to be expected since Congress gave to individual states the responsibility for implementation. API would rather see FERC take steps to further implement the existing rules and to take enforcement action where necessary before marching headlong into wholesale reform.

Nevertheless, the electric utility industry is changing, and the effects of PURPA are but one of many forces necessitating those changes. The economics of power generation, including fuel costs and capital costs, have been drastically altered from the days when economies of scale warranted increasingly larger central station units.

The Commissioners and the FERC staff are to be commended for their being willing to take a hard look at the structural problems of the electric industry and to suggest several alternatives. The paper industry believes, however, that if competition is the goal, those initiatives do not go far enough. Competitive bidding for capacity payments and encouragement of independent power producers will not effectively introduce the efficiencies of competition given the structural problems of monopolistic markets in the utility industry. The FERC's objectives should be to assure supply of a reliable source of electric power at the lowest reasonable cost to all rate payers. As one of the Nation's largest electric consumers, API strongly supports this goal.

The companies in the paper industry generally seek competitive bids for their purchase of energy and materials. And accordingly, we would support the electric utilities' use of a fair and nondiscriminatory competitive bidding process for determining capacity payments to qualifying facilities.

Among the paper industry's concerns, though, are the failure to subject the utilities to the same bidding requirements as all QFs if utilities want to build new or retrofit old capacity. API is also concerned with the risk of allowing utilities unfettered discretion in the evaluation of the non-price elements of bid packages, for example, fuel use, dispatchability, term, location, or size.

Bidding schemes may also create potential for discrimination against high capital cost technologies like waste-to-energy and hydro. They may tend to look at short-term rate impacts to the exclusion of longer term benefits, and they may fail to reach the optimum degree of QF development that otherwise would be achievable with full avoided costs.

It has been reassuring to hear that FERC Commissioners recognize these concerns and will attempt to resolve them in future proposed rules on bidding.

A fundamental premise of Chairman Hesse's proposal on IPPs is that the addition of IPPs will lead to economic efficiency in electricity markets. Unfortunately, the proposal wholly ignores the point that economic efficiency cannot occur without multiple buyers as well as sellers, and that transmission access is essential to enable buyers and sellers to transact in an open marketplace. Therefore, the proposal will not further the Chairman's stated goals.

The pulp and paper industry is ready to support the concept of IPPs as full participants in the competition for the supply of electricity in this country if the promotion of IPP is coupled with open access to regional transmission networks. Access to bottleneck transmission systems is essential if economic efficiency in the electricity industry is to be realized. Once access is obtained, IPPs should be permitted to compete on a level playing field with all other sources of electric power since the transmitting utilities' monopsony power will be substantially diminished.

The focus of the Commission's IPP proposal, however, appears not to be the promotion of economic efficiency or competition, but the relaxation of regulation for entities with little market power. The Commission's proposal is a little more than a Federal paperwork reduction plan with no significant effect on competition in the industry. In light of its clear inconsistency with explicit Federal policy goals, the proposal for IPPs in its present form must be rethought and revised. Proceeding with an all-source competitive bidding without access to transmission would be economically unjustified and legally deficient.

The paper industry will reserve its specific comments on the Commission's plan for competitive bidding until the Commission presents a concrete proposal in the upcoming notice of proposed rulemakings. API's support for the competitive bidding will depend on the specifics of the Commission's plan for implementation of bidding at the state level.

In the absence of wheeling access, however, competitive bidding should be limited to qualifying facilities. This approach will not prevent the development of IPPs which currently exist and which will continue to be attractive in certain markets. However, if the IPP rate proposal is the least-cost option for the utility, it would become the utility's avoided cost and the qualifying facilities would bid to provide electricity using the IPP proposal as the ceiling rate.

The paper industry agrees with the FERC that IPPs owned by utilities present special problems which must be addressed. API cautions the Commission against acting upon a simplistic and misguided assumption that utility-owned IPPs will be discouraged from engaging in such practices as daisy-chaining, sweetheart deals and cross-subsidization because of the mere possibility the state commission might find out later that they have done these things. The FERC must make sure that such acts cannot occur in the first place.

Before concluding, I would like to offer a short comment on the procedure that the FERC will employ once the NOPRs are finally promulgated. This issue is extremely complex as evidenced not only by the testimony at this hearing, but also by the amount of time that the FERC itself has spent in its analysis and development of proposed rules.

We in the paper industry would hope that the FERC will allow a sufficient amount of time for comment perhaps 90 or 120 days and would then allow time for rebuttal as well. We all favor further competition, but we know from our experience in other industries that a rush to deregulate is a decision that can cause far more harm than good.

The paper industry appreciates being given the opportunity to present its views to the Congress on these important issues. Effective competition simply cannot exist without a means to bring the product, electricity, to the market. API believes that the issue of access to electric transmission systems is the key to competition in the industry and that proposing all-source bidding before that access is achieved is putting the cart before the horse.

These remarks have been prepared based on earlier versions of FERC's proposal, and API requests the opportunity to submit supplementary testimony should more information become available. Thank you.

[The prepared statement of Mr. Nicholson follows:]

STATEMENT

OF

WILLIAM J. NICHOLSON

REPRESENTING THE

AMERICAN PAPER INSTITUTE

BEFORE THE SENATE COMMITTEE ON

ENERGY AND NATURAL RESOURCES

ON

THE IMPLEMENTATION OF THE PUBLIC UTILITY

REGULATORY POLICIES ACT

FEBRUARY 2, 1988

Good Morning - My name is William J. Nicholson. I am Manager, Corporate Energy Services, for Potlatch Corporation, and I am here on behalf of the American Paper Institute, or API, whose electricity committee I chair.

API is the national trade association of the pulp, paper and paperboard industry. API consists of approximately 165 manufacturers providing 95% of the nation's pulp, paper and paperboard output. The industry competes with foreign manufacturers for sales both in this country and abroad.

I. THE PAPER INDUSTRY'S UNIQUE PERSPECTIVE AS MAJOR RETAIL CUSTOMER AND MAJOR SELF-GENERATOR

The pulp, paper and paperboard industry is the third largest industrial consumer of electric power in the nation. The pulp, paper and paperboard manufacturing processes are highly energy intensive; the cost of electricity is a significant factor in the total cost of production of the manufactured products. API's members are thus very sensitive to the level of retail rates and have an interest in the Federal Energy Regulatory Commission's (FERC's) proposals from the viewpoint of a major electric ratepayer.

The pulp, paper and paperboard industry is also one of the largest non-utility producers of cogenerated and self-generated electric power in the country, and thus has a vital interest in the implementation of Section 210 of the

Public Utility Regulatory Policies Act of 1978 (PURPA) as well as the development of IPPs. Even where paper companies self-generate, it is clearly in the paper industry's interest to keep retail rates low. In most cases, the industry's self-generation and cogeneration facilities do not produce sufficient power to serve the full loads at the mills and thus additional retail power is needed from the utility.

API believes that the pulp, paper and paperboard industry's twin roles as a major consumer of electric power and as a major non-utility cogenerator and self-generator of electricity give it a unique perspective on the FERC's proposals on competitive bidding, independent power producers (IPPs), and avoided cost methodologies.

II. GENERAL STATEMENT OF POSITION

The paper industry's experience gleaned from involvement in cogeneration in a majority of the states reveals that the current program is working well. States are not implementing the federal program uniformly, but that is to be expected, since Congress gave to individual states the responsibility for implementation. API would rather see FERC take steps to further implement the existing rules and to take enforcement action where necessary before marching headlong into wholesale reform.

Nevertheless, the electric utility industry is changing, and the effects of PURPA are but one of the many forces necessitating those changes. The economics of power generation, including fuel costs and capital costs, have been drastically altered from the days when economies of scale warranted increasingly larger central station generating units.

The Commissioners and the FERC staff are to be commended for being willing to take a hard look at the structural problems of the electric industry and to suggest several alternatives. The paper industry believes, however, that if competition is the goal, those initiatives do not go far enough. Competitive bidding for capacity payments and encouragement of Independent Power Producers (IPPs) will not effectively introduce the efficiencies of competition given the structural problems of entrenched monopolistic and monopsonistic markets in the utility industry. The FERC's objectives should be to supply a reliable source of electric power at the lowest reasonable cost to all ratepayers. As one of the nation's largest electric consumers, API strongly supports this goal.

The paper industry generally seeks bids for its energy and materials purchases, and would support the electric utilities' ability to use a fair and non-discriminatory competitive bidding process for capacity payments to qualifying facilities (QF's). Among the paper industry's concerns, though, are the failure to subject utilities to the same bidding requirements as all QFs if utilities want to build new (or retrofit old) capacity, and the risk of allowing utilities unfettered discretion in the evaluation of non-price elements of bid packages (e.g. fuel use, dispatchability, term, location, size). Bidding schemes may also create the potential for discrimination against high capital cost technologies like waste-to-energy and hydro, may tend to look at short term rate impacts to the exclusion of longer term benefits, may place arbitrary values on non-price factors, may shift the focus from the utility's costs to the QF's costs, and may fail to achieve the optimum degree of QF development that would otherwise be achievable with full avoided costs. It has been reassuring to hear, in speeches by FERC staff and Commissioners, that there will be recognition of these concerns and an attempt to resolve them in future proposed rules on bidding.

The pulp and paper industry is also ready to support the concept of IPPs as full participants in the competition for the supply of electricity in this country *if* the promotion of IPPs is coupled with open access to regional transmission networks. Access to bottleneck transmission systems (wheeling) is essential if economic efficiency in the electricity industry is to be realized. Once access is obtained, IPPs should be permitted to compete on a level playing field with all other sources of electric power, since the transmitting utilities' monopsony power will be substantially diminished.

The focus of the Commission's IPP proposal, however, appears not to be the promotion of economic efficiency or competition but the relaxation of regulation of entities with little market power. While the deregulation of IPPs may make sense in economic theory, its accomplishments will do little to advance the goal of competition and efficiency that Chairman Hesse seeks as a fundamental principle in her proposal for the electric industry. The Commission's proposal appears to be little more than a federal paperwork reduction plan with no serious intent to increase competition in the industry. In light of its clear inconsistency with explicit federal public policy goals, the proposal for IPPs, in its present form, must be rethought and revised. Proceeding with all-source competitive bidding without access to transmission would be economically unjustified and legally deficient, as further discussed below.

III. IPPs AND ECONOMIC EFFICIENCY

A fundamental premise of Chairman Hesse's proposal on IPPs is that the addition of IPPs will lead to economic efficiency in the electricity markets. Unfortunately, the proposal wholly ignores the point that economic efficiency cannot occur without multiple buyers as well as sellers, and that transmission access is essential to enable buyers and sellers to transact in an open marketplace. Therefore, the proposal will not further the Chairman's stated goals.

IPPs, whose development is destined to flourish independent of FERC's recent efforts to promote them, will, by themselves, have little effect on the competitive landscape of the electric industry. The Commission staff proposes to have IPPs vie with QFs for scarce capacity allotments offered by monopsonist utilities. These utilities will be permitted to use their bottleneck control over transmission to deny power sales by competing suppliers that lose the right or opportunity to sell to the monopsonist. Surely this cannot be FERC's view of economic efficiency.

All that the addition of IPPs will do is put the squeeze on qualifying facilities, a group that Congress has recognized and favored for sound policy reasons.[1] It is claimed that IPPs may reduce the costs of a utility's purchased power slightly, with a subsequent slight reduction in payments to ratepayers of that utility. But API must ask whether FERC should be spending so much of its and others' time and energy promoting an idea that, at best, will not produce significant competitive gains. The paper industry believes that the country would be better served if FERC devoted its time to the creation of competitive markets by facilitating transactions between willing buyers and sellers, rather than propping up monopsonists and pushing theoretical programs that do not reflect the reality of the industry.

Moreover, there is a serious question about the accuracy of FERC's suggestion that IPPs, if nothing else, are likely to reduce rates to the ratepayers of the monopsonist local utility.At first blush, it would appear that the ratepayers may be better off with the IPP if its price is cheaper than an industrial cogenerator's price. But if, as a response to the IPP bid, the industrial cogenerator either (1) closes his plant because it is uneconomic to continue without the revenue from the planned qualifying cogeneration facility or (2) builds his cogeneration facility anyway because his actual operating cost is below the utility's

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1. Qualifying facilities were found to use fuel more efficiently, to conserve fossil fuels, and to have a more benign effect on the environment.

retail rate and leaves the utility's system, ratepayers can actually end up worse off. This is because the loss of the industrial load is far more costly to remaining ratepayers than the small difference between the bid-winning IPP price and the losing cogenerator price.

The point is that it is not intuitively obvious that the addition of IPPs to the supply mix for incremental supplies will automatically reduce rates to ratepayers or enhance economic efficiency. In fact, it may increase rates to ratepayers. FERC has undertaken no analysis of the likely impact of IPPs on retail ratepayers. Therefore, even its claim to modest potential benefits may be entirely illusory.

In addition, it is certainly unclear whether the possible transfer of rents (if any) from the cogenerator to the ratepayer as a result of IPP capacity will be of greater value to society than the retention of rents to qualifying facilities who, in addition to keeping load on the utility's system, will have greater conversion efficiencies and will conserve the use of oil and gas. The Staff has not attempted any empirical analysis of the trade-off of a possible reduction in rates for other societal values that make up the public interest. (See Section VII).

IV. WHAT IS THE INTENDED GOAL OF THE COMMISSION?

It is essential for the Commission to decide at the outset what its goal is for the electric industry. The IPP proposal paper is designed to serve an extremely limited goal that has little if anything to do with economic efficiency. It simply makes a case for limited federal regulation of entities that lack market power. In other words, the FERC is proposing a federal paperwork reduction plan. But is that a sufficient goal of a Commission that at other times and in related utility fields has pressed for competitive markets and economic efficiency gains? We think not. Moreover, there are legal impediments to federal regulation that will make even FERC's limited goal unachievable.

In addition to regulation of IPPs by the Securities and Exchange Commission under the Public Utility Holding Company Act ("PUHCA"), there is a serious question whether FERC can simply ignore traditional ratemaking principles under the Federal Power Act for energy producers who fall outside the requirements of PURPA. Moreover, absent PURPA, the states would have no authority to determine wholesale rates of projects (including IPPs) because the FERC has exclusive jurisdiction over wholesale sales and rates and because of the interstate character of electricity flows.

PURPA carved out a narrow exception to allow state involvement for cogeneration and small power production; for everyone else (except REA cooperatives), FERC continues to have exclusive, non-delegable authority over wholesale sales. In addition, FERC has no authority to force states to accept IPPs, since they are outside the purview of PURPA.

The paper industry may support FERC's initiatives despite their legal infirmities if wheeling access is achieved. Competition in a free market is the paper industry's goal and API strongly encourages FERC to take meaningful steps in that direction.

Absent that effort, the IPP proposal will lack a valid public policy rationale. Congress expressly limited the encouragement of non-utility entrants to facilities that use energy more efficiently than traditional sources or generate using renewable sources or waste. By encouraging generators that will not have to use more efficient technologies or fuels that will benefit society, the IPP proposal will actively discourage the kind of technologies that Congress sought to encourage under PURPA. The FERC may think that PURPA is no longer relevant, but it is not free to ignore the intent of Congress as expressed in that statute.

V. IPPS AND COMPETITIVE BIDDING

The paper industry will reserve its comments on the Commission's plan for competitive bidding until the Commission presents a concrete proposal in its upcoming Notice of Proposed Rulemaking on competitive bidding. API's support for competitive bidding will depend on the specifics of the Commission's plan for implementation of bidding at the State level.

However, assuming the bidding arrangement is otherwise appropriate, API cannot support the inclusion of IPP's in any bidding scheme unless access to transmission service for bidders is assured. At a minimum, the Commission should condition the inclusion of IPP power in a bidding scheme on the willingness of the utility purchaser of IPP power to wheel for other generating sources and should condition any utility-owned IPP's sale of power to a utility in any bidding scheme on the utility-owned IPP's agreement to wheel power for others. This latter condition is analogous to the Commission's take-or-pay crediting requirement as a condition for producer access to gas transportation under Order No. 500.

If the purchasing utility does not accept the wheeling condition, then IPPs should not be allowed to enter the bidding process. As previously discussed, the mere addition of suppliers will only minimally affect competition without access to more than a single buyer. Moreover, additional IPPs in competition with qualifying facilities to supply a single purchaser could drive such facilities out of the market despite the explicit Congressional preference for qualifying facilities over other technologies pursuant to the PURPA statute.

Similarly, IPPs owned by utilities that will not open up their transmission systems to competition should not be allowed to gain the benefit of relaxed regulation to supply the single purchaser. FERC should not countenance an entity's anticompetitive behavior when considering relaxation of regulation for that entity.

In the absence of wheeling access, therefore, competitive bidding should be limited to qualifying facilities. This approach will not prevent the development of IPPs, which currently exist and which will continue to be attractive in certain markets. However, IPP rate proposals, if the least-cost option to the utility, would become the utility's avoided cost, and qualifying facilities would bid to provide electricity using the IPP proposal as the ceiling rate.

API strongly suggests that, instead of focusing on retention of a utility's captive markets and providing incentives for utilities to construct new capacity, FERC should direct its attention toward making the marketplace competitive and providing the opportunity for reduced costs of electricity for all potential buyers of power.

VI. IPPs OWNED BY UTILITIES

The paper industry agrees with FERC that IPPs that are owned by utilities present special problems that must be addressed. API cautions the Commission against acting upon a simplistic and misguided assumption that utility-owned IPPs will be discouraged from engaging in such practices as daisy chaining, sweetheart deals, and cross-subsidization because of the mere possibility that a state commission might later discover the improper acts. The FERC must make sure that such acts cannot occur in the first place.

Utilities have a strong advantage over non-utility generators precisely because of the existence of traditional rate of return regulation. Most of a utility's assets are virtually guaranteed a reasonable return; traditional regulation in effect creates a price support or subsidy to existing utility capacity. With its cash flow thus assured, a utility-owned IPP could afford to take greater risks with a comparatively small increment of capacity than a single-asset non-utility IPP which has no authorized return on other assets. This gives utility-owned IPPs a clear advantage.

In addition, utilities can cross-subsidize among classes of service to underprice competition for new generating capacity. As long as there is a guaranteed return on investment, utilities will have an incentive to allocate as many costs as possible into the regulated segment of its business, which could include hidden costs associated with an unregulated IPP (e.g., various overhead expenses and common plant).[2]

At all events, no utility-owned IPP should be permitted to enter the field under a FERC-sanctioned scheme unless the utility is willing to permit competition in the field by agreeing to transmit power for others. The utility's position is likely to be dominant because of its rate base protection on existing assets, its historic dealings with other utilities and its market power in specified regions. FERC should not encourage utility construction without a concomitant requirement that the utility do its part to enhance competition in the industry.

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2. A similar problem would exist if a utility is allowed to bid against qualifying facilities in the utility's service area. There must be a clear isolation of the costs associated with a utility's construction of capacity from all other utility costs to prevent the utility from underpricing its bid due to subsidization by ratepayers.

Utility construction for the sake of construction is pointless.

VII. THE NEED FOR EMPIRICAL SUPPORT FOR THE FERC PROPOSAL ON IPPs

Many of the assumptions contained in the FERC IPP proposal have no empirical foundation. For example, there is no evidence that the nation will face capacity shortages in the future (although there have been predictions of regional shortages), or, even if such shortages lay ahead, that the capacity from qualifying facilities could not meet the nation's needs. In addition, the proposal is replete with statements that utility investment in generating capacity needs to be encouraged, without any assessment whether such generation would be either cost-effective or otherwise beneficial to society.

Further, the proposal lacks any empirical support for its claim that IPPs will foster new technologies besides those that PURPA is currently able to encourage, and provides no evidence that the pre-PURPA, non-PURPA electric power that it allegedly has identified would, to any significant degree, actually be available for sale to the utility grid.

The proposal's claim that IPPs will eliminate the need for "PURPA Machines" is somewhat ironic, in light of the FERC Staff's traditional hostility to "PURPA machines." IPPs, of course, will be the ultimate "PURPA machines," since they will not even have to meet the minimal operating and efficiency requirements that qualifying facilities are required to meet.

Finally, there has been no effort to quantify the likely efficiency and competitive gains from the IPP proposal, or to compare them to the efficiency and competitive gains that could be achieved as a result of creating transmission access for the electric industry.

CONCLUSION

The paper industry appreciates being given the opportunity to present its views to the Congress on these important issues. Effective competition simply cannot exist without a means to bring the product -- electricity -- to the market. API believes that the issue of access to electric transmission systems is the key to competition in the industry and that proposing all-source bidding before that access is achieved is putting the cart before the horse.

These remarks have been prepared based on earlier versions of FERC's proposal, and API requests the opportunity to submit supplementary testimony should more information become available.

Senator CONRAD. We will honor that request certainly here. I want to thank Mr. Nicholson.

Next we will hear from Mr. Bernard Cherry who is the president of Oxbow Geothermal Corp. of Reno, NV. Mr. Cherry?

STATEMENT OF BERNARD H. CHERRY, PRESIDENT, OXBOW POWER GROUP

Mr. CHERRY. Thank you, Senator. It's a pleasure to be here. I appreciate the opportunity to appear before the committee.

The Oxbow Power Group is actively involved in the development and construction of unregulated electricity generation facilities. And we are a company that was developed as a result of the enabling legislation passed in 1978, PURPA. We are involved in the development of almost 800 megawatts of generation in seven States, and we'll have a substantial investment in these facilities when they are completed.

All of our efforts are aimed at providing an economic, reliable, safe and environmentally acceptable source of electricity to our utility customers while providing a fair return to our shareholders. And our product is electricity.

My comments before the committee today will focus on three aspects of the proposed FERC policies for the regulation of IPPs and QFs, and the areas are: the need for modification and/or clarification of PURPA; the need for FERC guidelines for the use of bidding systems; and the need to create a new category of independent power producers, IPPs.

First, on PURPA, in my view the legislation has been a resounding success. As with any new initiative, there have been bumps and turns along the road, but I think by any measure, the legislation produced a major new source of electricity supply for the Nation and a new industry and significant new capital to support the electricity supply industry in that segment. Indeed, PURPA changed the conventional wisdom on the structure and character of the electricity business. While the kind of entity that developed in the aftermath of the legislation is different I think than many people contemplated, it was not the mom and pop small operations, but rather well-financed, serious ventures aimed at supplying electricity and making a profit for their shareholders. That industry can make a major and a significant contribution to the overall business.

I think it is fortuitous that this has been the case because load growth and necessary increases in supply will occur in the late 1980's and early 1990's. Some regions, notably in New England, are already beginning to feel the pinch. The satisfaction of even modest load growth will require an enormous amount of additional capital to be invested in the electricity supply capability in the United States. Even a 3 percent load growth that needs to be built for will require annual capital additions that could be $30 billion to $50 billion, which is almost 10 percent of the total invested capital now in the generation part of the electricity business.

The alternative energy non-utility source for such generation provides an opportunity to bring capital from sources previously not tapped by the investor owned utilities. And I think for this reason alone, it is important to facilitate the development of that industry so we make sure that we are tapping all available capital to drive the expansion of generation when that is necessary.

There are some modifications of PURPA which I think would not alter the intent of the legislation and would facilitate the development of additional QF generations. There are certain limitations on the size of qualifying cogeneration—on qualifying small power production facilities that could be modified. There is an 80 megawatt limit on geothermal facilities. I think that could be changed and increased. There are also limits on the size of certain waste-fueled facilities: 80 megawatts for qualification and 30 megawatts for exemption from Federal Power Act and Public Utility Company Holding Company Act restrictions. I think at this point these limits are anachronistic. They do expose the owners of such facilities to unnecessary regulation under the Federal Power Act and under PUHCA. We believe that Congress could and should amend PURPA to eliminate or increase these capacity limitations.

On bidding—and I vary a little bit with some of my colleagues on the panel—I don't believe that the mandating or the prohibition of bidding at the Federal level is appropriate. I think it is an unwarranted and unnecessary intrusion into local jurisdictional matters. That is not to say that I oppose bidding. I think bidding can be carried out at the state level between the state regulators and their jurisdictional utilities, but I don't think that it's a matter that the FERC should involve itself in.

The subject of IPPs—I think it is important that a new class of IPPs be created under the Federal Power Act. Our company and other serious, well-managed companies could provide another, much-needed additional supply capability and still additional capital associated with such supply. The facilitating of the development of IPP facilities is consistent with the current financial and corporate structure of the electric supply industry. The statutes that today impeded the development of such supply, the Federal Power Act and the Holding Company Act, were parts of legislation developed in 1935 which was aimed at the prevention of abuses by large vertically integrated utilities or holding companies with captive service territories. And what we are talking about is trying to create more competition, and these laws are impeding the development of more competition at this point.

Since IPP will not have captive customers or monopoly powers, it doesn't seem necessary to hold such entities to the same standards or regulation as conventional utilities. For example, cost-of-serve rate-making would not seem to be appropriate in a competitive supply market. IPPs and their utility customers should be allowed to negotiate the lowest rate acceptable to both buying and selling parties. Utilities should not be required to buy from IPPs, but should be allowed to do so when such a purchase provides a least-cost alternative to utility generation.

Mr. Kuhns said the greatest current impediment to the development of independent power production facilities is the Public Utility Holding Company Act. It severely limits the ownership and location of utility assets. It puts restrictions on financing, and is overall a major impediment for any unregulated corporate entity to engage in the ownership of IPPs. And I urge this committee to enact legislation as appropriate to exempt small power producers and IPPs from the Holding Company Act and to encourage FERC to facilitate the development of IPPs as an additional source of generation.

In summary, I support the continued development of non-utility electricity supply. In a relatively short period of time, less than 10 years, a highly motivated, cost effective industry has emerged as a result of the facilitating legislation in the late 1970's. We have tapped sources of financing and investment capital not previously utilized in the construction of electric generating facilities. And the industry has developed and demonstrated that it has the wherewithal to be part of the overall solution to our long-term energy supply needs. I urge this committee to continue its work in supporting innovative approaches to U.S. energy policy by modifying PURPA, the Federal Power Act and the Public Utility Holding Company Act as required to further support the expansion of the non-utility power industry.

[The prepared statement of Mr. Cherry follows:]

THE ROLE OF INDEPENDENT POWER PRODUCERS AND QUALIFYING FACILITIES IN THE SUPPLY OF ELECTRICITY

Bernard H. Cherry
President
Oxbow Power Group

Comments submitted to the U.S. Senate
Committee on
Energy and Natural Resources

February 2, 1988

My name is Bernard H. Cherry; I am President of the Oxbow Power Group. Thank you for the opportunity to appear before the Senate Committee on Energy and Natural Resources to comment on proposed Federal Energy Regulatory Commission (FERC) policies on the regulation of Independent Power Producers (IPPs) and Qualifying Facilities (QFs).

The Oxbow Power Group is actively involved in the development, construction and operation of unregulated electricity generation facilities. Oxbow Geothermal Corporation is nearing completion of a 50 MW geothermal project in central Nevada. This facility, the first phase in the development of a 400 MW resource, will supply electricity to Southern California Edison Company via a 210 mile, 230 kv transmission line also constructed and owned by Oxbow Geothermal. Oxbow Power Corporation is developing and constructing seven fossil fired QFs totalling approximately 400 MW. Oxbow projects, when complete, will involve investments in excess of a billion dollars. All of our efforts are aimed at providing an economic, reliable, safe and environmentally acceptable supply of electricity to our utility customers while providing a fair return to our shareholders.

Today, my comments before the Committee will focus on three aspects of proposed FERC policies for the regulation of IPPs and QFs. These areas are: 1) The need for modification and clarification of the Public Utility Regulatory Policies Act of 1978 (PURPA); 2) The need for FERC guidelines for the use of bidding systems for utility purchases of non-utility power under PURPA; 3) The need to create a new category of independent power producers (IPPs) who would be subject to reduced regulation under the Federal Power Act (FPA) and the Public Utility Holding Company Act (PUHCA).

1. The need for modification and clarification of PURPA.

PURPA has been a resounding success. It has met or exceeded all the expectations of its originators. A significant new source of electricity supply and its required investment capital has emerged as a result of the 1978 legislation. PURPA changed the conventional wisdom on the structure and character of the electricity business. While the type of entity that has developed is in some respects much different than contemplated in the legislation, a strong new industry has grown in the last ten years. It is somewhat ironic that the non-utility power industry has experienced such growth in a period when utility demand growth has not been significant in most regions. It is fortuitous that this has been the case since load growth and necessary increases in supply will occur in the late 80s and early 90s. Some regions, notably New England, are already feeling the pinch. The satisfaction of even modest load growth will require an enormous amount of additional capital to be invested in our nation's electricity supply capability. Load growth of the order of 3% will require annual capital additions of $30-50 billion, which is almost 10% of the total investment in all existing generation. For this reason alone our country would be well served by taking maximum advantage of all potential sources of investment for generation, both utility and non-utility.

There are some modifications of PURPA which in my view would not alter the intent of the legislation and would at the same time facilitate the development of additional QF generation. As you are aware, PURPA limits the size of certain small power production facilities while not limiting the size of qualifying cogeneration facilities. I believe that the current 80 MW limit on geothermal facilities should be eliminated. Further, the limits on the size of certain waste fueled facilities should also be revised. There would appear to be no current basis the limits on the qualification (80 MW) and exem on (30 MW) of these facilities. These arbitrary l ts expose the owners of such facilities to unnecessary regu ion under the FPA and PUHCA. Congress should amend PA to eliminate or increase the capacity limitation on sma power production facilities and to allow exemption of all lifying small power production facilities from reg tion under PUHCA and the FPA.

2. The need for FE guidelines for the use of bidding systems for utility pu ases of non-utility power under PURPA.

As a former utility ecutive, I strongly believe that the involvement of FERC i the development of bidding systems is neither necessary n prudent. The mandating -- or prohibition -- of bidding a the federal level would be an unwarranted intrusion into loc jurisdictional matters. Utility companies and their st e rate regulatory agencies have both the capability and t incentive to make prudent purchasing decisions. The inve tment of FERC staff resources and the legislative effort nece sary to support such an initiative would be unjustified

3. The need to crea e a new category of independent power producers (I s) who would be subject to reduced regulation under the Fe deral Power Act (FPA) and the Public Utility Holding Company ct (PUHCA).

A new class of IPPs should be created under the FPA. Oxbow and other serious, well managed, independent supply entities could provide a much needed additional supply capability and the investment capital associated with such supply. As I indicated earlier, I believe that both utility and non-utility sources of supply will be needed to assure the availability of adequate capital to meet future electricity needs. Facilitating the development of IPP facilities is consistent with the current financial and corporate structure of the electricity supply industry. Statutes (the FPA and PUHCA) that today impede the ability of non-utility suppliers to develop IPPs were parts of the 1935 legislation aimed at preventing abuses by large, vertically integrated utilities or holding companies with captive service territories. Since IPPs will not have captive customers or monopoly power, it does not seem necessary to hold such entities to the same standards or regulation as conventional utilities. For example, cost of service ratemaking would not seem to be appropriate in a competitive supply market. IPPs and their utility customers should be allowed to negotiate the lowest rate acceptable to both buying and selling parties. Likewise, utilities should not be required to buy from IPPs but should be allowed to do so when such a purchase provides a least cost alternative to utility generation.

The greatest current impediment to the development of IPPs is the Public Utility Holding Company Act. PUHCA severly limits the ownership and location of utility assets. The act also places significant restrictions on financing and operations of such entities. Overall, PUHCA is a significant negative impediment for any unregulated corporate entity to engage in the ownership of IPPs.

I urge this committee to enact legislation as appropriate to exempt small power producers and IPPs from PUHCA, and to encourage FERC to facilitate the development of IPPs as an additional source of non-utility generation.

4. Summary

I support the continued development of non-utility electricity supply. In a relatively short period of time a new, highly motivated, cost effective industry has emerged as a result of the facilitating legislative efforts of the Congress in the late '70s. The industry has tapped sources of financing and investment capital previously not utilized in the construction of electric generating facilities. The non-utility power industry has demonstrated that it has the wherewithal to be part of an overall solution to our nation's long term energy supply needs. I urge this committee to continue its work in supporting innovative approaches to United States energy policy by modifying PURPA, the Federal

Power Act and the Public Utility Holding Company Act to further support the expansion of the non-utility power industry.

Mr. Chairman, with your permission, at this time, I would also like to take this opportunity to submit a statement for the record on behalf of the Geothermal Resources Association.

Last year, Oxbow and other companies involved in geothermal energy development submitted written comments to the FERC regarding Chairman Hesse's proposal for regulating IPPs. Briefly, the GRA supports PURPA and urges retention of those incentives provided by that statute. We believe that the steady progress being made in the development of a geothermal industry in this country results in large measure from the benefits provided by PURPA. The geothermal industry urges retention of PURPA as currently administered, supports the changes I have suggested and rejects any schemes that will threaten the progress we are making. These concerns will be more fully described in the written statement of the GRA.

Thank you for the opportunity to appear before you today.

Senator **Conrad**. Let me do this. You have each heard statements from four others, and I know there are some times you hear something else mentioned by a witness and you very much want to have a chance to respond to that or have a chance to expand upon what someone else has said to drive home the point. I would like to just briefly give each of you the opportunity. Don't feel compelled to do so if you don't feel the need to make an additional comment. But if you have an additional comment on something else you have heard, I would like to give you each the opportunity to expand on it, rebut it, or whatever your desire is.

Mr. Lay, have you heard something here that you would like to expand on or comment on?

Mr. **Lay**. Only one thing. But let me first say I think there obviously was a lot of agreement as we went down the panel here too. And certainly many of us were making the same points and underscoring the importance of having this competitive arm of the industry participate in a way where it can contribute capital and it can contribute facilities and so forth.

I think the one point I would like to address, though, is the whole question of reliability, and I did not hear the panel this morning. But having read the arguments many times before, I think I know probably what was said. But if, indeed, we come to the conclusion that the only way we're going to have reliable service is to have a highly regulated industry, then there are an awful lot of other industries we ought to regulate. Clearly, the market provides a lot of very reliable services and products throughout this economy in industries that have no regulation. So, I think that is hiding behind a shield, and that's all it is. Certainly very essential services are provided in this economy without the help of regulators. And I think certainly in the case of electricity or generation of electricity, I think that is another essential service that can be provided very well in the competitive market without the assistance of the regulators.

Senator **Conrad**. All right. Mr. Kuhns, do you have a follow-up comment that you would like to make?

Mr. **Kuhns**. Yes, sir, Mr. Conrad. I would like to emphasize I believe the comments of Mr. Nicholson with respect to the hobbling effect that a marketplace, open to many suppliers but only one purchaser, would have. I would emphasize his statements with respect to the true need for open access to transmission.

I would also emphasize that I believe the parties that built and presently own those lines should be adequately compensated for the capital and investment and resources devoted to those lines.

I think the second comment I would just like to reemphasize in my own remarks is the need for changes within PUHCA and, indeed, within PURPA to better reflect the much more substantial industry that independent power is today. I think Mr. Cherry outlined some of the anachronistic levels of sizes of qualifying facilities. Clearly, those levels contemplated a much smaller, less substantial and less of an impact industry than we have.

I think the other thing that is woefully lacking in the present size limitations is the fact that simply today probably the most competitive cost plant is a plant that no qualifying facility owner can build; that is, a 150 to 250 megawatt coal plant or another type of facility can't be built by us today because of PUHCA. Again, I think PUHCA has caused my corporation in particular an undue amount of stress having to move our state of incorporation from Delaware to Louisiana and otherwise change our corporate status. And I would hope that PUHCA could be changed to prevent this in the future.

Thank you.

Senator CONRAD. Before we go further, I would just like to ask a followup question of Mr. Kuhns, and if others would like to comment, feel free.

I hear coming from all of you I think basic support to a greater or lesser degree in the idea of competitive bidding. I am wondering what your reaction is to the argument that we sometimes hear that we are going to damage that capital investment that is already out there. If you take off the limits that are there that some call anachronistic, what do you do to the plant that is in place?

Mr. KUHNS. Well, Senator, I believe that it depends on what type of long-term contract the plant has. If it has a set rate contract—that is, the standard offer 4 type contract prevalent in California—at first blush I would say you damage that operator very little.

On the other hand, I do believe that with a true, open competitive environment in place the true avoided cost would stay down or stay down longer than we would anticipate at present. For example, in California I believe your avoided cost levels on a variable basis might stay down well into the 1990's, and what that could mean is people who have anticipated an increase in rates for a return of capital might see that pushed back in advance.

So, I think the answer would be—at least one answer would be that an owner of a plant with a true avoided cost contract—that is, one that is variable—could be harmed but at the benefit of the rate payer. And I think the rate payer always has to come first. Yes, sir.

Senator CONRAD. Mr. Lay?

Mr. LAY. Senator, I think you have come to the nub of the issue here because I think clearly what would happen if this industry continues to become more competitive and have more independent, non-regulated competitors is that there would have to be a total re-rationalization of all of the existing assets and costs. And that is exactly what the airline industry went through, what banking is going through, what railroad has been through, what pipelines are going through. And certainly in some areas where there is excess capacity, we would probably have ourselves in an electricity bubble for a while instead of a gas bubble. And in other areas where, in fact, there is a shortage of capacity, why, there would be a very tight market and probably rather quick development.

But for the most part, what is going to happen is those facilities, which either going in or coming out are non-economic in today's market because they cost a lot more than they were supposed to or they weren't needed or whatever—there are going to have to be some substantial reevaluations of property. And I think that is where this will be headed.

We obviously have gone through it in the pipeline business with our take-or-pay contracts, and in some cases with too much gas supply, and in some cases with facilities that aren't needed in a truly competitive efficient world. But if the name of the game is to get to a competitive environment and provide the most efficient and most economical service throughout the economy, then that is just part of the price that gets paid.

Senator **Conrad**. Let me ask a follow-up to that because I think we are in the nub of the issue here and I want to get your reaction to another proposition.

There has been concern with other aspects of deregulation that what happens is somebody comes in, creams off the most profitable part of the business, and leaves the rest to the established base that may be serving areas that have for other reasons less attractiveness. For example, airline industry deregulation, rates become very attractive between Chicago and Washington, or Chicago and New York, Chicago and LA, LA and the east coast. They become much less attractive in my part of the country; airline rates have jumped. And the same question I think presents itself with respect to these proposals.

Is there a danger that in deregulating, IPPs come out, cream off the most profitable customers and that with open access parts of the country wind up paying higher rates? Mr. Cherry, would you like to respond?

Mr. **Cherry**. Senator, I think the reverse is true. I think that with the constraints and restrictions that now exist, the ability to get very competitive in markets where the price may be a little bit too high just doesn't exist. We can't go into a market that looks very favorable and build the optimum size coal plant to deliver electricity to that utility because of the restrictions in the Holding Company Act.

I think that the cost of building a facility is always going to be more in New York City than it is in North Dakota just because of the difficulties in accomplishing things in large metropolitan areas versus rural areas. And that is always going to be reflected to some degree in the cost of electricity. But in a competitive environment you really ought to get what the true market cost of that electricity ought to be including the kinds of difficulties and so on that you have in getting the job done there.

Senator **Conrad**. Mr. Nicholson wanted to comment and then Mr. Cresci.

Mr. **Nicholson**. I have observed that in the rural areas that you represented a concern about that wheeling is going to be very important to them. Their load growths are generally in small amounts. Now, maybe percentage-wise it may be large, but they have a small base. And it would probably be most economic in their instances to be able to reach over to the other side of the State, to perhaps the next State, to find a source that might come to supply them through their bidding process when they go out and that utility looking for 20 or 30 megawatts as opposed to someone looking for 150 or 200 megawatts. And so, I think wheeling is part of the answer to your issue that you are identifying.

Senator **Conrad**. Let me just ask a followup on that question. Then we will get Mr. Cresci's comment.

The whole notion of open access is one that creates a lot of anxiety in certain circles obviously. Those that have a plant, those that have a monopoly area that they are serving get very uneasy when they start hearing conversation about open access. What is it that you say to them in answer to their argument, look, this has been our territory? We had the responsibility to meet the load demands in this area. We have built the plant. We've taken the risk. And now you are letting others come in and potentially dump power at very low rates and do enormous economic damage to those of us who have invested in the past. What is your answer to that argument?

Mr. NICHOLSON. Sir, the obligation to serve, which is at the heart of the question you're raising, lies on the distribution side of the utility, not necessarily the generation side of the utility. And the distribution side of the utility, if it is doing its job properly to supply an assured supply of power at a reasonable cost, is going to go to the most cost effective source. That may not be its own generation.

Senator CONRAD. Mr. Cresci?

Mr. CRESCI. I think that Mr. Nicholson's answer was really almost more applicable to the question about how do you prevent this issue of a rural area, for example, getting cost effective service. And I think the answer to that is unless I'm confused about what FERC is about here, they are talking about deregulating power generation not distribution. And at the distribution, the retail level, the obligation to serve is one that I think is critical and must remain under some type of monopoly control.

Where you buy power from—power is a totally fungible commodity, and where the power is acquired from does not really make much difference as long as you have it when you need it and it is cost effective.

Perhaps the analogy to the airline industry might have more to do with the question of regulating the people who manufacture airplanes as opposed to the carriers. And there are a lot of other very significant differences between that and this.

I think in terms of the issue of transmission, it seems to me that there has been a little bit of comments in different directions on the whole issue of open access. I do think some form of open access is necessary for bidding if only on the limited basis that utilities that are bidding should not also be able to freeze people out from use of those lines to carry someone else's power to respond to the same request for proposal.

And I also think that there is a real question in my mind that I think has to be kind of looked at in a situation that is coming from a background of monopoly, and that is how can you really say you have taken the risk and you have built this thing and it's yours and you have the right? I can understand controlling it from a security standpoint, but the risk was taken by the public in their area. The risk was taken by the rate payer, and the rate payer and the compensation for that back to the rate payer is a fair return on the investment of that asset. So, I am not quite certain that there is really an argument that they should continue to own it simply because they took the risk to build it. The rate payers paid for that.

Senator CONRAD. Mr. Lay?

Mr. LAY. Could I follow up on that just with a kind of clarification on my earlier comment? And I think it was Mr. Cresci who said this is going to be an evolutionary process, which it is.

I made the comment that certainly in some parts of the country we have got surplus capacity today. In some parts of the country, like the northeast, it is extremely tight today. But according just to all the estimates at least I've seen, even with very modest electricity growth of 1 or 2 percent—and many areas are growing faster than that—we are going to need 30,000, 40,000, 50,000, 60,000 megawatts of additional capacity over the next decade—at least that much. And that is a lot of new generating capacity. So, obviously, as I said, there is going to be a rationalization here, but there is also going to be the growth in the market.

And then coming back to Mr. Cresci's point, if in fact utility managements have insisted, as some have, on continuing very expensive projects, even over the last 5 years or 8 years when cheaper options were available—and they have gotten those into rate base. Then again if those are non-competitive facilities in this new environment, I'm not sure that there shouldn't be some penalty for that in a truly competitive market mode. And there will be. I mean, there will be some facilities that may have gotten in the rate base, but will be very non-economic.

Senator CONRAD. Let me just say that we are about at the end of our time. But I would like to give a chance to each of you to respond to the reliability question because, as you know, that has been very central to the argument. And I would like to give each of you a chance to respond to that. Some of you have, of course, mentioned it in your initial testimony, but you have an additional comment, something you would want to add, why don't we take that now. Mr. Lay?

Mr. LAY. Just very quickly because I did address that earlier. But as I said, throughout our economy there are essential services and products provided by non-regulated businesses that do it very well. Virtually all of our shelter, all of our food, most of our fuel—I mean, a lot of what we take for granted every day and which, in fact, from time to time can threaten health or life, are provided without any regulation. And I don't see that there is any justification to believe that an unregulated, competitive generating industry couldn't be just as reliable and maybe in some ways more reliable than a regulated industry.

Senator CONRAD. Are there any examples that any of you gentlemen have in a situation where there was a reliability question or problem?

Mr. NICHOLSON. I would like to address that. The history of reliability in the paper industry—it's a very positive story. All of the facilities generally are qualifying facilities, and they are involved with mostly supplying steam or heat to the process. And for that portion of the operation, they are the sole source of that steam or heat, and the plant does not run without them. When we cogenerate and make electricity, electricity generation has the same kind of reliability that that basic thermal process underneath it has.

We typically operate our plants 350 to 360 days a year. The utility industry cannot even come close to that on an individual plant basis.

Senator CONRAD. Mr. Cherry wanted to make a followup.

Mr. CHERRY. Yes. When you talk about reliability, you really have to separate it into two pieces. And that is what the utilities have to do to plan to make sure there is enough electricity available to feed their perceived needs for their system. And that is a planning problem, and I would assert that that's a planning problem that is manageable for the utilities.

The other part of it is whether or not the facilities that are built by independent power producers or QFs are going to run. And while we hear a lot of stories about how they don't run, the facilities that haven't run have primarily been windmills and other kinds of things that were built and driven by tax credits that are no longer around or available.

And the fact is that the cogeneration facilities, the geothermal facilities and the small power production facilities with very few exceptions have a very high reliability, 85 percent plus, which is certainly comparable to what is achieved by the investor-owned utility industry as it should be because we use the same equipment, the same suppliers, the same engineers, the same people to build the plants as they do. We have a very powerful incentive to make those machines keep running, and that is if they don't run, we don't get paid. And if we don't get paid, we have a very serious problem. We don't have rate payers to go to.

Senator CONRAD. Mr. Lay?

Mr. LAY. Just one specific example. Our largest cogeneration plant is at Texas City, TX. It is a 450 megawatt plant. It came on stream May 1 of last year. It came on at a cost of less than $400 per kilowatt hour installed and about months early. It has operated over 94 percent efficiency since it came on, and that has been true of the other gas-fired plants that we've operated. I think the highest record achieved by a nuclear plant was recently reported at about 84 percent. The average is in the low 60 percent rate. And the average coal plant is down in the 60 to 65 percent range. But there is certainly no evidence that we can see that the independent generators or cogenerators aren't operating as efficiently and maybe in some ways more efficiently and more reliably than some of the utilities.

Senator CONRAD. Would anyone else like to make a comment on this reliability question? Mr. Cresci?

Mr. CRESCI. The only comment which I have somewhat alluded to in my testimony is this issue of spreading risk and distribution of risk. And I believe that whether you spread the risk by specking in the bid process the size of facilities, the mix of fuels, et cetera, that the ability to modulate, to monitor the risk that is incurred to reliability, even assuming the potential for failure, for which I see no evidence at all in the cogeneration or alternative energy side of the business—I believe that that also goes a long way toward the whole issue of system reliability and availability of power to the end user.

Senator CONRAD. All right. Any final concluding comments that anyone would like to make before we close this hearing down? Mr. Nicholson?

Mr. NICHOLSON. I would like to offer one, and that is PURPA has been one of the most successful programs that has ever been instituted in the industry. And one of the keys to that has been the implementation of PURPA by the States. And the observations must be made that the Congress did an excellent job 10 years ago when they put it together.

Senator **Conrad**. Well, I just a colleague of mine has arrived. Senator Hecht, we were just about to conclude, but if you have questions, we would certainly keep the hearing open.

Senator **Hecht**. Oh, I appreciate it, Mr. Chairman. I am sorry that I was tied up with Mr. Greenspan down at the Banking Committee on the effects of what the Banking Committee can do to prevent another Wall Street collapse. And unfortunately, I am here to report that I don't know what we can do. [Laughter.]

But I thought at the time that I should be down there listening to him.

I have a gentleman here from Nevada who is interested in geothermal. And so, I am sorry I did not get a chance to hear his testimony, but I am happy to welcome you here.

Mr. **Cherry**. Thank you, Senator. We did provide the statement for the record. We very much appreciate your efforts on behalf of the geothermal business in helping facilitate a Geothermal Leasing Act revision which we think will encourage further geothermal development in the Western United States.

Senator **Hecht**. We call geothermal a sleeping giant because, as we run out of other sources of energy and in the future when prices go up, geothermal is going to be far more competitive and an endless supply of energy. And we are happy that you are working on geothermal.

Senator **Conrad**. Well, your constituent gave excellent testimony here today, Senator. And I want to thank all of the panel. This was very good testimony, very helpful to the committee. I want to tell you that the committee will be sending some written questions to you, and we would appreciate your responses. And I also want you to know we will hold the hearing record open for 2 weeks. Thank you very much on behalf of the committee.

[Whereupon, at 3:09 p.m., the hearing was adjourned.]

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